

Part I – Process Evaluation of Maine’s Statewide Adult Drug Treatment Court Program

March 25, 2005

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Executive Summary

Maine is one of two pioneer states to have successfully implemented both a statewide adult drug court program and a statewide juvenile drug court program. Maine's statewide adult drug court program is a court supervised *post-plea* (but pre-final disposition) deferred sentencing program requiring weekly court appearances before a designated program judge.

Adult drug court programs are now implemented in five of Maine's sixteen counties with a combined population of nearly 735,000 people, or approximately 62% of Maine's population. Adult drug courts became operational in April, 2001 when the first participant was admitted to the Cumberland County (pop. 265,612) drug court with Superior Court Justice Crowley and District Court Judge Horton presiding. Superior Court Justice Brennan and District Court Judge Wheeler preside over the York County (pop. 186,742) drug court. District Court Judge Romei presides over drug court sessions in Machias and Calais in Washington County (pop. 33,941). Superior Court Justice Mead and District Court Judge Murray preside over the Penobscot County (pop. 144,919) drug court in Bangor. Superior Court Justice Gorman presides over the Androscoggin County (pop. 103,793) drug court in Auburn.¹

By the end of 2004, more than 450 offenders had enrolled in Maine's Adult Drug Treatment Court program of whom 126 are still currently active. Of the 330 participants who have been discharged, 56% (183) successfully completed the program and graduated. After a year following completion of the program, the re-arrest rate for the first 89 graduates (20%) is lower than re-arrest rates of a comparison group of offenders traditionally adjudicated (30%) or drug court participants who were expelled (35%) from the program.²

This report summarizes how key components of the drug court model established by the National Drug Court Institute operate in Maine. The report evaluates the effectiveness of these components across a variety of process measures:

- 1) Eligible participants are identified early and promptly placed in the drug court program;
- 2) Drug courts provide access to a continuum of alcohol, drug, and other related treatment and rehabilitation services;
- 3) Abstinence is monitored by frequent alcohol and other drug testing;
- 4) A coordinated strategy governs drug court responses to participants' compliance.

Maine's adult drug courts have incorporated these components in the daily operations of their programs. Moreover, findings reported here indicate positive program effects along all four dimensions. The report also identifies the nature of improvements that should be considered to increase program effectiveness at each site.

¹ The Oxford site ceased accepting new referrals in January 2003 and ceased operations in May, 2004. Today, five adult drug courts are in operation.

² For a more thorough analysis of program completion, recidivism and cost/savings refer to: "Part II: Outcome Evaluation of Maine's Adult Drug Court Program." (Anspach and Ferguson, 2005)

Introduction³

For over thirty years criminal justice policy has attempted to break the cycle between addiction and crime by responding to the problems posed by substance abusing offenders involved in the revolving door of the criminal justice system. Until recently, attempts to achieve these goals have failed. More recent approaches that do appear to produce reductions in recidivism and drug use are those programs combining community-based substance abuse treatment and case management with criminal justice supervision such as therapeutic communities and drug courts (Marlowe, 2002).

The concept of the drug treatment court has reshaped criminal justice policy by forging an interdisciplinary team to address the addictions and criminal behaviors of offenders through an approach that integrates substance abuse treatment, sanctions, and drug testing by way of coerced therapy requiring offenders to use these services. In addition, drug courts provide job skill training, family/group counseling and a variety of other ancillary services. Drug courts represent a coordinated effort to establish new linkages among the judiciary, prosecution, defense bar, probation, law enforcement, mental health, social service, and treatment communities. In this "marriage" of services, the client undergoes an intense regimen of drug treatment, case management, drug testing, and supervision, while reporting to regularly scheduled status hearings before a designated program judge (Fox and Huddleston, 2003). By the end of 2004, more than 1,200 drug courts were implemented serving each of the 50 states, Puerto Rico, Guam and the two Federal Districts (Cooper, 2004).

A growing body of research literature suggests positive outcomes for drug courts – that drug courts are helping to improve the lives of difficult to reach populations (Roman 2004). This literature consistently indicates that drug court graduates have lower post-program arrest rates than expelled participants and comparison groups during the same follow-up periods (Truitt, 2001; Gottfredson, 2002). Despite problems of design and sample size, Wilson (2002) found that 36 of the 42 published drug court evaluations they reviewed reported positive program effects. On the basis of their review of 27 drug courts evaluations, the United States General Accountability Office (2005) concludes that drug court programs can reduce recidivism compared to criminal justice alternatives, such as probation. Roman (2004) concludes that future research on drug courts must identify how particular drug court components are affecting outcomes and provide definitive conclusions about how and in what ways the drug court model reduces drug use and crime among participants.

This is the first of three reports about Maine's statewide drug court program that contributes to that endeavor. The current report details the referral process and evaluates how various components of the drug court model – drug testing, sanctions, and treatment contribute to participant success. The second report focuses more directly on the delivery of treatment services and examines the implementation of the manualized treatment program, DSAT. The

³ Maine's Office of Substance Abuse in consultation with Maine's Judicial Department, contracted researchers from the College of Arts and Sciences at the University of Southern Maine to evaluate the program. Dr. Donald F. Anspach and Andrew S. Ferguson serve as co-principal investigators for the project working in collaboration with research staff Jody Giambatista. The Honorable Roland A. Cole from Maine's Judicial Department, Linda Frazier from Maine's Office of Substance Abuse, and Elizabeth Simone, Director of Maine Pre-Trial Services has served as the primary adult drug court representatives involved in the evaluation.

third report is concerned with drug court outcomes. Using a comparison group of substance abusing offenders who did not participate in the drug court program, the third report examines the overall impact of Maine's drug court program and focuses on recidivism outcomes and advantages of the drug court in terms of cost savings.

Methodology and Research Design

The current report examines the efficacy of core components of the drug court model including client supervision, drug testing, and sanctions. More specifically, the report examines how effectively sanctions and incentives, case management supervision, drug testing and the delivery of ancillary services are integrated into program operations. The study is based on offender level information including demographic characteristics, outcomes of drug and alcohol testing, treatment attendance and utilization of ancillary services. Offender-level data was obtained for 1,127 persons referred to the drug court over the forty-four month period beginning April 1, 2001 and ending November 30, 2004.

This report is organized as follows: The next section examines characteristics of the participants and their drug using histories. This is followed by a brief overview and assessment of the productivity of Maine's statewide adult drug treatment court program. The fourth section examines cross-site compliance with the drug testing protocol. Subsequent sections examine participant drug test results and home visits. The sixth section examines the role of sanctions and incentives. This is followed by a brief overview of the Differentiated Substance Abuse Treatment (DSAT) program and participant use of ancillary services. The last section provides an overall summary of the report and a series of recommendations that may further enhance the drug court program.

Participant Characteristics and Drug Use Histories

Maine's drug court program enrolls criminal offenders with serious drug abuse problems. Table 1 presents information about the drug use and demographic characteristics of the 111 participants who were admitted to the program after November 30, 2003. Prior to entering the drug court program, more than two-thirds (68%) of participants had received treatment for alcohol or drug use. As shown in Table 1, the percent who received prior treatment services range from a low of 52% at Court E to a high of 87% at Court D.

Most offenders currently have very serious substance abuse problems. The Computerized Screening Assessment is an instrument used to provide an initial substance abuse screen to identify the severity of an offender's substance abuse problem. As shown in Table 1, over 85% received substance abuse scores in the moderate to severe range. Ranging from 60% to 93%, there are variations among the courts in the percent of clients who received the more severe Level 4 and 5 scores on the computerized screening assessment (CSA).

The primary drug of choice among drug court participants is either opiates (41%) or alcohol (29%). However, participants in Court A (57%) tend to favor alcohol over use of other drugs whereas in Court E, the predominant drug of choice is clearly opiates (83%). There is little cross-site variation in the age at which this participant's started using alcohol or drugs. The median age at first use is 14 in the aggregate as well as for each of the five sites.

Table 1: Characteristics of the Participants in Maine's Adult Drug Court

		<i>Adult Drug Treatment Court Sites</i>					
		<i>Court A (N=23)</i>	<i>Court B (N=15)</i>	<i>Court C (N=27)</i>	<i>Court D (N=23)</i>	<i>Court E (N=23)</i>	<i>Total (N=111)</i>
	% Male	74	73	78	87	70	77
	% White	96	93	100	91	83	93
	% Partner	65	67	59	48	35	54
	% Employed at Admission	86	60	64	41	65	64
	% Prior Treatment	74	73	56	87	52	68
	% Graduated High School	78	40	33	65	48	53
	% Prior Treatment	74	73	56	87	52	68
	%Daily Use	57	93	74	91	78	78
	%Children	65	40	63	44	30	50
	% Rx Medication	39	60	44	57	44	48
	%Dual	9	33	48	48	9	30
	Living Situation						
	% Independently	22	27	37	44	22	31
	%Significant Other	44	33	37	17	13	29
	%Friend/Relative	35	40	26	39	65	41
Drug of Choice							
	% Alcohol	57	20	41	13	9	29
	% Opiates	14	47	11	52	83	41
CSA	% Other	26	33	48	35	9	31
	%2	0	7	0	9	0	3
	%3	9	33	7	9	9	12
	%4	74	27	82	30	78	61
	%5	17	33	11	52	13	24
Age							
	Mean	32	32	35	30	26	31
	Median	31	27	30	27	26	27
Age at Use	Range	19-51	20-57	20-66	19-55	19-42	19-66
	Mean	14	16	14	14	14	14
Age at First Offense	Median	14	14	14	14	14	14
	Range	5-21	3-54	3-30	9-19	8-22	3-54
	Mean	19	21	19	19	21	20
	Median	18	21	18	17	19	18
	Range	13-36	13-56	8-48	11-40	18-33	8-56
Amount of Money Spent to Support Habit (weekly)							
	Mean	\$281	\$320	\$803	\$1713	\$635	\$824
	Median	\$100	\$200	\$300	\$500	\$500	\$375
Amount of Money to Support Habit Obtained Illegally (weekly)	Range	\$10-1000	\$100-700	\$20-7000	\$70-14000	\$50-2500	\$10-14000
	Mean	\$124	\$170	\$687	\$1195	\$305	\$554
	Median	\$0	\$0	\$125	\$350	\$0	\$55
	Range	\$0-1000	\$0-500	\$0-7000	\$0-14000	\$0-2000	\$0-14000

Similarly, there is also little variation in the age at which these participant's first became involved with the criminal justice system - the average age is 20 and ranges from age 8 to age 56. Participants also report a substantial volume of criminal activity obtaining, on average, \$554.00 per week in illegal funds to support their drug using habits. The amount of money participants spent varies significantly as it is related to their drug of choice. For example, where opiates are the primary drug of choice (Courts D and E), we also find participants reporting the highest weekly expenditures on drugs (\$500.00). Similarly, participants at Court C also report high expenditures for drugs and alcohol and these participants reported cocaine as one of their primary drugs of choice (not shown).

Demographic characteristics of participants are similar to those nationwide. Overall, the majority of participants are white (93%) males (77%) with an average age of 31. This is consistent across sites. One-half of the participants (50%) have financial dependents ranging from a low of 30% in Court E to a high of 65% in Court A. With the exception of Court D (41%), the majority of participants were employed at the time of their admission (64%). And, nearly half of the participants (47%) had neither completed high school nor obtained their GED.

Productivity: Enrolling Participants

One Key Component of the drug model requires that eligible participants are promptly identified, screened and admitted to the drug court program. In this section of the report, we examine the relationship between referrals and admissions to determine the extent that Maine's drug court program comports with this Key Component. Of particular concern is the identification of unnecessary delays or log jams occurring in the admissions process.

Figure 1: Time Series Distribution of Referrals and Admissions

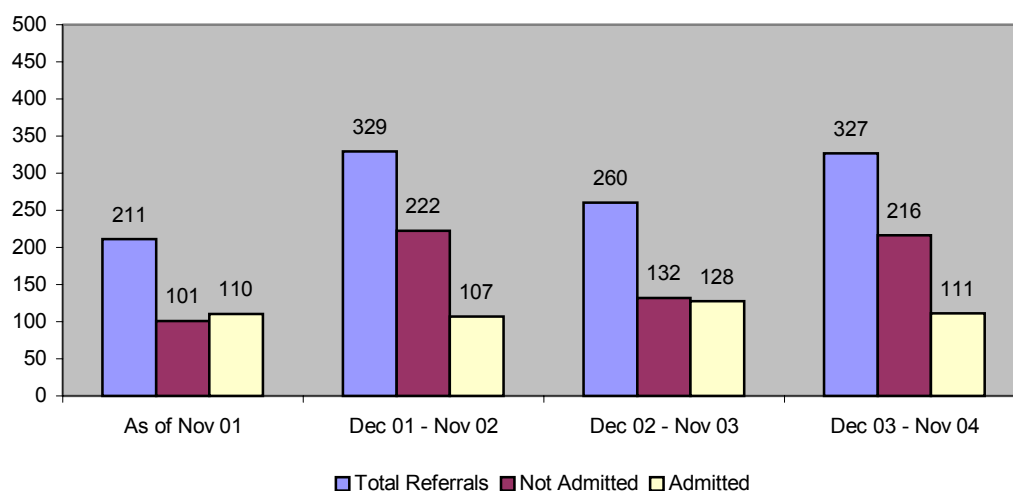


Figure 1 examines the number of referrals and admissions to the statewide drug court program over the four year period 2001-2004. It shows that the number of referrals to the drug court program have actually increased at a faster rate than the number of admissions. Although the total number of admissions has remained constant over time - averaging approximately 114

new clients each year, referrals have increased. During the most recent reporting period beginning December 1, 2003 and ending November 30, 2004, the program received a total of 327 new referrals - a 26% increase in referrals over the previous year. Of these 327 referrals, only 111 (34%) new clients were accepted into the program.

Table 2 compares productivity findings of each drug court site and indicates that Court B is the most productive court processing the largest number of referrals. The total number of referrals each court processed range from a low of 171 in Court F to a high of 266 in Court B⁴. Court B does not, however, admit the largest number of clients as there are variations both in the number of admissions and the rate of admissions. The number of admissions range from a high of 102 in Court C to a low of 73 in Court A.

Table 2: Comparison of the Productivity of Maine's Adult Drug Treatment Court

	<i>Adult Drug Treatment Court Sites</i>						
	<i>Court A</i>	<i>Court B</i>	<i>Court C</i>	<i>Court D*</i>	<i>Court E</i>	<i>Court F</i>	<i>Total</i>
Total Referred	249	266	214	44	183	171	1127
Not Admitted	176	176	112	20	107	80	671
Total Enrollments	73	90	102	24	76	91	456
Overall Admission Rate	29%	34%	48%	55%	42%	53%	41%
2004 Admissions as of Nov. 30 th	23	15	27	-1	24	23	111
2003 Admissions	18	23	29	9	16	33	128
2002 Admissions	17	29	13	11	22	15	107
2001 Admissions	15	23	33	5	14	20	110
Admissions Rate Over Time							
2004	30%	23%	48%	-	36%	38%	34%
2003	32%	43%	41%	90%	59%	77%	49%
2002	21%	35%	30%	44%	32%	48%	33%
2001	41%	35%	75%	71%	64%	56%	52%

Drug courts in Maine should make further efforts to increase the number of admissions thereby expanding capacity. As shown in Table 2, variations in the rate of admissions across sites are fairly wide ranging from a low of 29% in Court A to a high of 53% in Court F⁴. Indeed, variations in the overall *rate* of admissions have fluctuated both within and across sites over time. This variability coupled with the relatively high volume of referrals and lower rates of admissions suggests that delays or log jams are occurring in the admissions process reducing the state's overall capacity.

⁴ Court D ceased operations on May 25, 2004. One participant from Court D transferred to another drug court jurisdiction and subsequently completed that program on June 28, 2004.

Processing Offenders: Admission Procedures

To further explore this issue, we examined the three basic steps comprising the admissions process: a legal screening, a computerized screening assessment (CSA) and a comprehensive assessment interview (CAI). Once referred to the drug court, potential participants are legally screened to determine initial eligibility. Case management is primarily responsible for conducting the legal screening. This is followed by a computerized screening assessment (CSA) that is conducted by either the Department of Corrections' Division of Community Supervision or by a local treatment provider. The primary purpose of the CSA is to determine the extent of dependence on alcohol or drugs as a basis for referral to the drug court. Potential participants may be referred for a comprehensive assessment interview (CAI) when warranted by the results of the computerized screening assessment (CSA). Here, treatment professionals validate results of the CSA through a face-to-face interview with the client. The CAI is also used to examine other factors that must be considered before a final determination of clinical eligibility can be made. Once completed, the local drug court team makes a recommendation to the judge about admission to the program.⁵ If all parties agree on the defendant's eligibility, a plea agreement is entered between defense counsel and the prosecution and new bail is set which mandates participation in the drug court. The defendant or probationer enters a plea of guilty to the designated charge(s) and sentencing is deferred to allow for successful completion of the program. If the defendant either chooses to leave the program or is expelled because of non-compliance or treatment failure, the contracted for and agreed upon drug court sentence is vacated and the previously agreed upon default sentence is imposed.

Figure 2 is a flow chart of Maine's Adult Drug Court Program from initial referral to discharge. It summarizes the basic steps that occur before a potential drug court participant is admitted into the program, and approximates the amount of time (state-wide averages) required to complete this process.

⁵ A defendant may be admitted by an open plea to the judge, or a plea agreement can be reached.

Figure 2. Flow Chart of Maine Adult Drug Court Program from Referral to Discharge

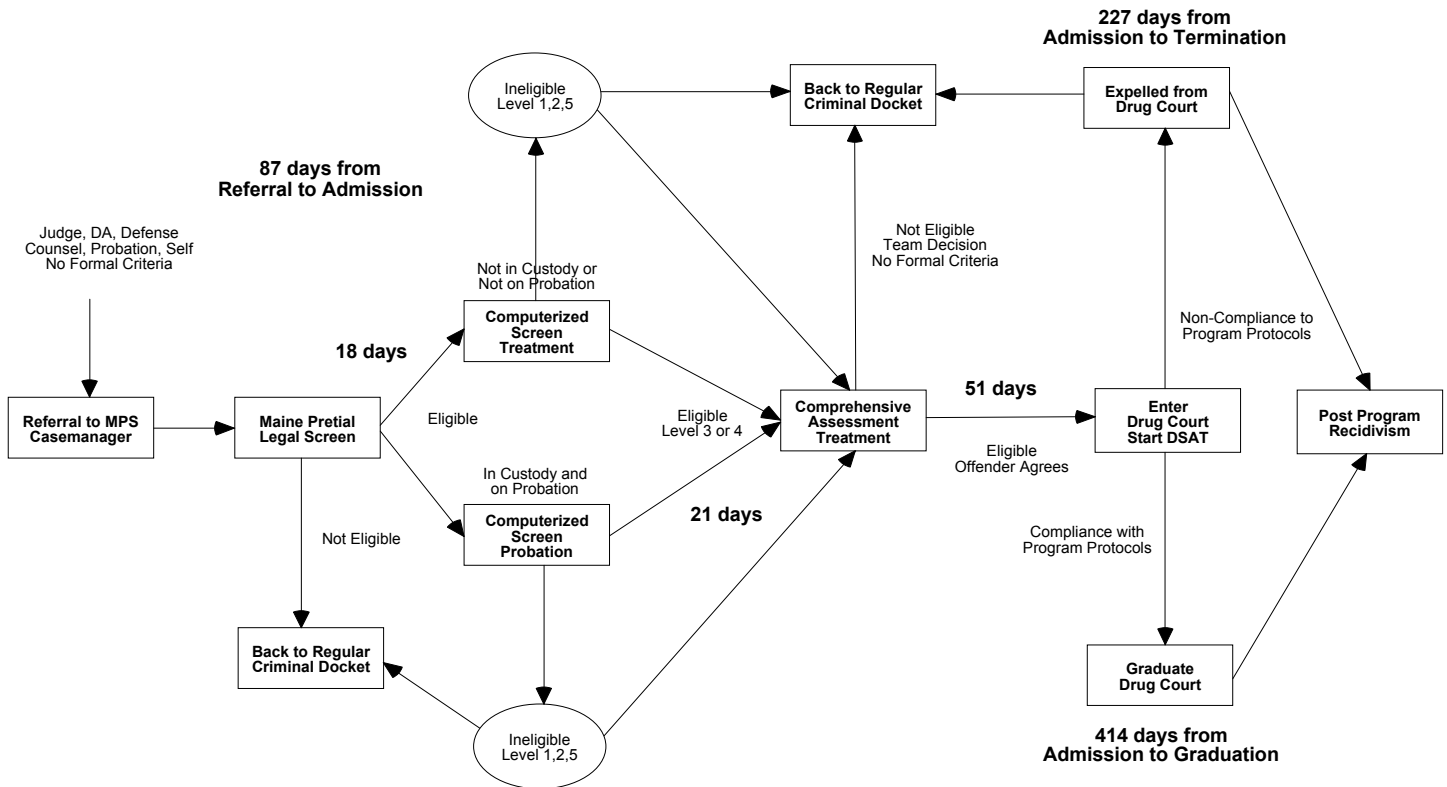
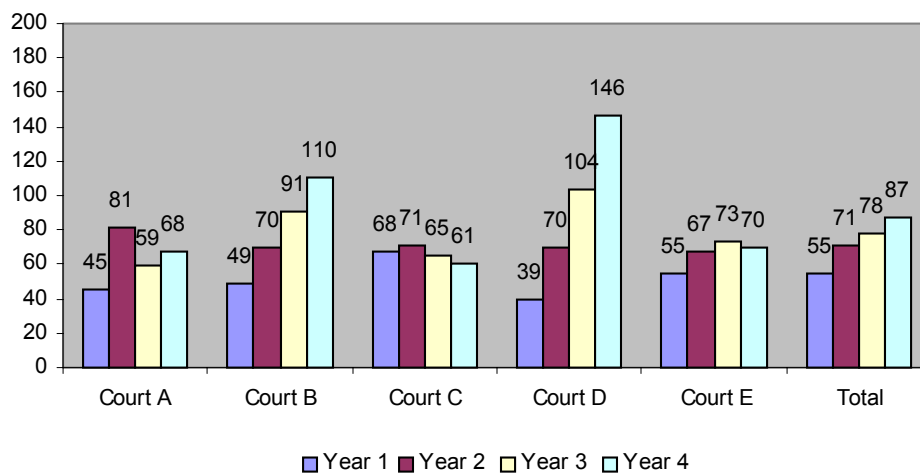


Table 3 and Figure 3 clearly indicate there are delays in the length of time it takes to be admitted to the drug court program. In the 2003 report, we found that the amount of time between initial referral and final admission was approximately 78 days. Not only does this time-frame exceed the amount of time recommended by existing policies, it also fails to comport with the key component of drug court programs requiring early identification and prompt placement of participants. Findings for 2004 indicate that the average length of time between referral and final admission has actually increased by an additional 12% over the previous year. Currently, it takes an average of 87 days to be admitted to the drug court program. It should be noted, however, that two sites (Courts E and C) have reduced the length of time it takes to be admitted to the drug court, however these reductions are minimal. Overall, these findings indicate that Maine's Adult Drug Court Program has been unable to reduce the amount of time it takes for new clients to be admitted. Since the admissions process is comprised of three primary steps, it is important to more clearly specify where this "log jamming" is occurring.

Table 3: Time between Initial Referral and Admission (days)

		<i>Adult Drug Treatment Court Sites</i>					
Length of Time from Referral to Admission (days)		<i>Court A</i>	<i>Court B</i>	<i>Court C</i>	<i>Court D</i>	<i>Court E</i>	<i>Total</i>
Year 1		45	49	68	39	55	55
Year 2		81	70	71	70	67	71
Year 3		59	91	65	104	73	78
Year 4*		68	110	61	146	70	87

*9 cases were excluded from the analysis due to admission requirements necessitating either incarceration or participation in residential treatment prior to entering the program.

Figure 3. Length of Time Between Initial Referral and Admission (days)

In order to address where these log jams are occurring, we examined information about the length of time it takes to complete each of the steps in the admissions process (Table 4). It will be recalled that the admissions process consists of a legal screening - Step 1; a computerized screening assessment (CSA) - Step 2; and, a comprehensive assessment interview (CAI) - Step 3. During 2004, Step 1 took an average of 18 days to complete and Step 2 took an average of 21 days. The amount of time to complete each of these steps is virtually identical and unchanged from the previous year. We find that Step 3 is the lengthiest part of the admissions process. The average length of time between completion of the comprehensive assessment interview (CAI) and final admission to the drug court is 51 days an increase of 13 days from the previous year. The amount of time for determining final eligibility is clearly where the “log jamming” is occurring. Anecdotal evidence from key actors at the various sites suggest that the delays in completion of Step 3 can be attributable to some sites reaching maximum capacity, heightened scrutiny on behalf of some prosecutors or delay tactics by defense counsel. Since this is a key area where reductions in the length of the admissions process can be realized, local drug court team members ought to continue to identify ways to shorten this part of the admissions process.

Table 4: Lengths of Time in the Admissions Process (days)

		<i>Adult Drug Treatment Court Sites</i>					
		<i>Court A</i>	<i>Court B</i>	<i>Court C</i>	<i>Court D</i>	<i>Court E</i>	<i>Total</i>
Step 1. Length of Time from Initial Referral to CSA (days)							
	Year 1	13.5	19.1	20.4	10.6	17.3	18.0
	Year 2	32.5	24.7	46.5	21.8	11.7	25.4
	Year 3	24.0	18.6	16.0	20.9	12.0	17.4
	Year 4	25.5	17.4	18.7	13.7	12.7	17.6
Step 2. Length of Time from CSA to CAI (days)							
	Year 1	13.3	37.8	2.4	12.5	11.9	14.8
	Year 2	11.9	38.3	3.9	34.7	13.1	22.8
	Year 3	17.8	37.2	21.5	19.3	11.6	21.1
	Year 4	11.0	45.9	13.0	42.5	11.4	21.4
Step 3. Length of Time from CAI to Admission (days)							
	Year 1	25.2	18.3	45.6	15.9	23.6	28.3
	Year 2	50.5	21.7	27.5	44.1	44.9	35.2
	Year 3	25.1	33.2	25.9	64.0	41.5	37.6
	Year 4	31.7	46.7	43.6	89.3	45.6	51.0

Program Completion Outcomes

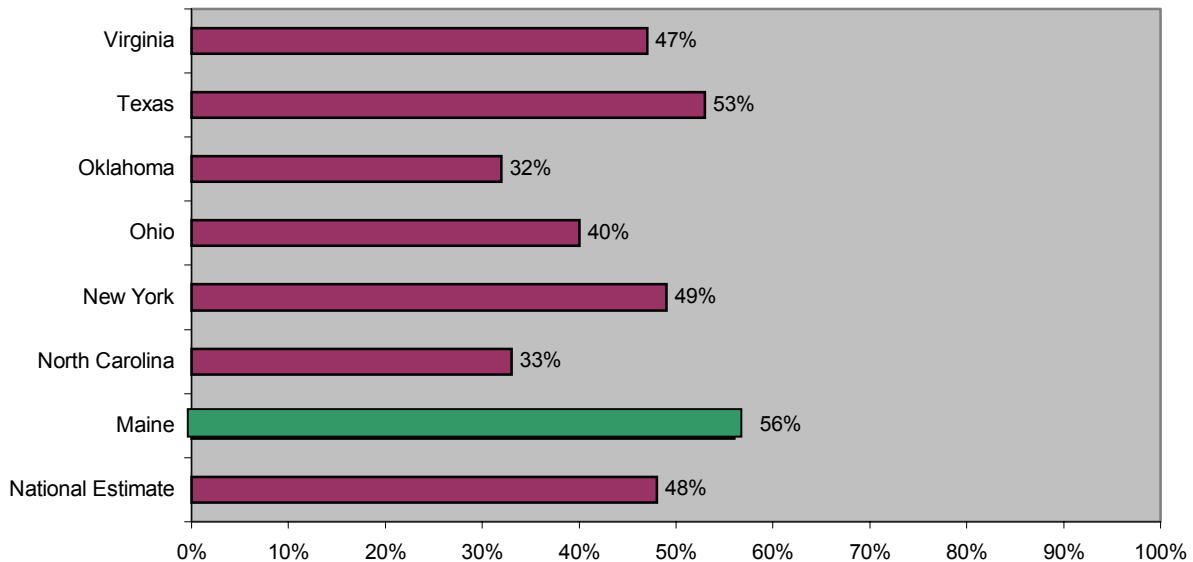
The major ceremony in Maine's drug courts occur on the day an individual successfully completes the program and graduates. It is often a widely publicized event and attendees can include local officials, legislators as well as families and friends of the participants. Since the programs inception in 2001, a total 330 clients have either been favorably or unfavorably discharged from the program. Of these, 183 (56%) participants successfully completed the program through graduation and 147 (44%) participants were expelled. As shown in Table 5 graduation rates do not significantly vary from site to site ranging from a low of 52% in Courts B and F to a high of 63% in Court A. The overall program completion/graduation rate for Maine (56%) is higher than most statewide drug court programs nationally (48%) and exceeds those recently reported by the GAO (46%).

Table 5: Program Completion Outcomes for Maine's State-wide Adult Drug Court

	<i>Adult Drug Treatment Court Sites</i>						<i>Total</i>
	<i>Court A</i>	<i>Court B</i>	<i>Court C</i>	<i>Court D*</i>	<i>Court E</i>	<i>Court F</i>	
Discharged- Expelled	18	30	36	10	20	33	147
Discharged- Graduated	31	32	42	14	28	36	183
Currently Active Participants	24	28	24	-	28	22	126
Status of Active Participants							
Phase 1	2	5	3	-	7	10	27
Phase 2	9	13	7	-	9	1	39
Phase 3	9	7	7	-	8	10	41
Phase 4	4	3	7	-	4	1	19
Graduation Rate	63%	52%	54%	58%	58%	52%	56%
National Estimate							48%
Retention Rate	75%	67%	65%	58%	74%	64%	68%
National Estimate							69%

*Court D ceased operations on May 25, 2004. One participant from Court D transferred to another drug court jurisdiction and subsequently completed that program on June 28, 2004.

Figure 4. Rate of Successful Program Completion for Maine's State-wide Adult Drug Court Program as Compared to other State Jurisdictions



The Drug Testing Protocol

A careful examination of Maine's drug testing protocol is essential to assess the overall effectiveness of the program. One of the Key Components of drug courts is the frequent and effective use of randomized and monitored drug and alcohol testing. It is essential to the success of drug court programs, because drug testing serves as a deterrent thereby providing greater assurance that clients are complying with the abstinence requirement of the program. In addition, drug testing provides treatment professionals valuable information about participant substance use and aids in the modification of individualized treatment plans.

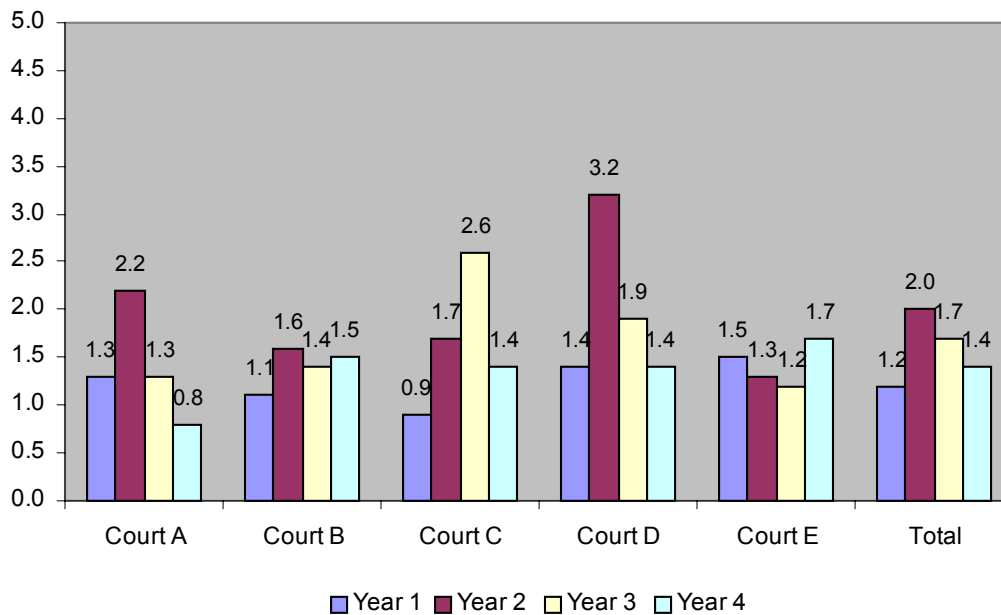
In response to the 2001 evaluation, the Statewide Steering Committee implemented a policy requiring that the frequency of drug testing be increased. Results from the 2002 and 2003 evaluations found that this goal of two tests per person per week was being met. However, as shown below, the frequency of drug testing during the current evaluation period has decreased.

Maine's drug courts have not complied with their own policy of two drug tests per client per week – particularly at site A. This is shown in Table 6. In 2004 the frequency of drug tests decreased by 18% reducing the statewide average to 1.4 tests per person per week. This pattern of decreased drug testing occurred at three of the five sites. The only major exception is Court E where the number of drug tests increased from 1.2 tests per person per week in 2003 to 1.7 tests per person per week in 2004. Court A tests less frequently than the other four sites averaging 0.8 tests per person per week. (Findings presented in Table 6 are also graphically displayed in Figure 5.)

Table 6: Cross-site Comparisons of Drug Testing Practices

		<i>Adult Drug Treatment Court Sites</i>					
Average Number of Weekly Drug Tests		<i>Court A</i>	<i>Court B</i>	<i>Court C</i>	<i>Court D</i>	<i>Court E</i>	<i>Total</i>
	Year 1	1.3	1.1	0.9	1.4	1.5	1.2
	Year 2	2.2	1.6	1.7	3.2	1.3	2.0
	% Change year 1 to year 2	69%	45%	89%	129%	-15%	67%
	Year 3	1.3	1.4	2.6	1.9	1.2	1.7
	% Change year 2 to year 3	-41%	-13%	+53%	-41%	-8%	-18%
	Year 4	0.8	1.5	1.4	1.4	1.7	1.4
	% Change year 3 to year 4	-38%	+7%	-46%	-26%	+42%	-18%
Testing by Phase (Year 4)							
	Phase 1	1.2	1.9	1.7	1.6	1.9	1.7
	Phase 2	1.1	1.3	1.4	1.2	1.7	1.3
	Phase 3	0.6	1.1	1.2	1.1	1.2	1.0
	Phase 4	0.4	-	0.9	1.0	1.1	0.9

Figure 5. Time Series of Weekly Drug Testing Practices by Site



Testing Positive for Drug Use - Compliance with the Drug Testing Protocol

An absence of positive drug tests is the major way to determine compliance with the abstinence requirement of the program. Data presented here reflects information gathered on 111 drug court participants who were admitted to the program between December 1, 2003 and November 30, 2004. Over the past year, a total of 6,449 drug tests were administered to these 111 new drug court participants. There were a total of 387 positive drug screens and 6,062 negative drug screens. That is, 6.0% of all tests yielded positive results for the presence of one or more drugs (refer to Table 7). This compares favorably with rates of positive drug tests across drug court programs nationally (17%) as well as for adult offenders in other non-institutionalized programs (35%)⁶.

Table 7 also presents information about the number of offenders testing positive for drug use at each of the five drug court sites. Overall, 56% of participants did not test positive for drugs over the past year, 21% of the participants had one positive drug test and 23% had two or more positive drug tests. Those testing positive averaged two positive tests with a range from one to nine. It is interesting to note that the three sites where drug testing declined have the highest rates of positive drug tests – suggesting that infrequent drug testing fails to serve as a deterrent. More frequent drug testing at these sites may result in more positive outcomes for participants.

⁶ OJP Drug Court Clearinghouse and Technical Assistance Project. "Drug Court Activity Update: Summary Information on All Programs and Detailed information on Adult Drug Courts" June 20, 2001.

Table 7: Cross-site Comparisons of Drug Testing Results

	<i>Adult Drug Treatment Court Sites</i>					
	<i>Court A</i>	<i>Court B</i>	<i>Court C</i>	<i>Court E</i>	<i>Court F</i>	<i>Total</i>
Average Percent Positive Tests						
Year 4	6%	8%	10%	2%	2%	6%
Year Previous	1%	5%	11%	8%	10%	8%
Participants Testing Positive						
% None	39	67	33	74	74	56
% One	26	33	30	9	13	21
% Two or More	35	-	37	17	13	23
N	23	15	27	23	23	111
Participants with Positive Tests						
Mean	1.9	1.0	2.4	1.8	2.3	2.0
Median	2.0	1.0	2.0	2.0	1.5	2.0
Range	1-4	1-1	1-9	1-3	1-5	1-9
N	14	5	18	6	6	49

Home Visits

The daily supervision and monitoring of client progress throughout the program is an important component of the drug court model. In Maine, drug court case managers and local law enforcement officials have primary responsibility for the day to day supervision of participants. Not allowed to make home visits on their own, case managers often accompany probation officers and other local law enforcement officials in conducting unscheduled visits to participant homes⁷. These visits typically include random drug and alcohol tests.

Findings from the 2003 evaluation indicated wide variations in the frequency of home visits being conducted. At that time, the evaluation team suggested the statewide steering committee establish a minimum standard for the frequency of home visits that should occur. That policy is now changed and Maine now requires a minimum of 2 unscheduled home visits per person per month.

Data presented in Table 8 reflects there have been improvements but at four of the five sites Maine's drug courts are **not** in compliance with the new policy. In fact, one-third of the new participants have yet to be visited in their homes. Controlling for length of program participation, findings in Table 8 indicate that participants, overall, received approximately 1.2 unscheduled home visits per month – an increase from the previous year but still lower than the policy recommended by the statewide steering committee. These findings are consistent across sites with the exception of Court E where participants received 2.9 unscheduled home visits per month – more than any three of the other sites combined.

⁷ While case managers are employed by Maine Pre-Trial Services and serve the drug court on a full-time basis, probation officers serving the drug court are employed by Maine's Department of Corrections and serve the drug court program as part of their employment.

Table 8: Cross-site Comparisons of the Frequency of Home Visits

		<i>Adult Drug Treatment Court Sites</i>					
		<i>Court A</i>	<i>Court B</i>	<i>Court C</i>	<i>Court D</i>	<i>Court E</i>	<i>Total</i>
Home Visits (Year 4)	Mean	3.4	7.9	1.7	1.9	5.7	4.0
	Median	3.0	7.0	1.0	1.0	1.0	2.0
	Range	1-8	0-20	0-6	0-7	0-20	0-20
	% None	44	33	30	35	26	33
	% One	4	13	30	17	17	17
	% Two or More	52	54	40	48	57	50
	N	23	15	27	23	23	111
	Visits per month						
	Year 4	0.7	1.1	0.8	0.5	2.9	1.2
	Year 3	0.3	1.3	0.5	0.9	1.3	0.9

Sanctions and Incentives – the Key to a Program of Behavioral Management

A key component of drug courts suggests the use of graduated sanctions and rewards to ensure compliance with program requirements. Theoretically, a system of sanctions and rewards has the potential to be an effective tool in a program of behavioral management (Marlowe, 2002). Each of Maine's five adult drug court programs has implemented a system of graduated rewards and sanctions for their drug court. This section of the report provides cross-site information on the use of sanctions and rewards and compares this information with data gathered from the previous year.

Our findings indicate that Maine's use of rewards and sanctions are consistent with a program of behavioral management in that it complies with the principle of providing more rewards (n=690) than sanctions (n=413). However, improvements need to be made in the gradation of these rewards and sanctions. Referring to Table 9, incarceration is the most heavily relied upon sanction (54%) in the program. The tendency for incarceration to be used as the initial rather than last sanction contradicts the principle of graduated sanctions. The use of incarceration as a sanction increased by 15% from the previous year whereas requiring increased reporting decreased by 6%. The most frequently used reward is phase advancement (70%) followed by graduation (11%) and jurisdictional passes (8%).

Table 9: Cross-site Comparisons of the Types of Rewards and Sanctions

	<i>Court A</i>	<i>Court B</i>	<i>Court C</i>	<i>Court D</i>	<i>Court E</i>	<i>Total</i>
Types of Sanctions						
% Jail	61	51	63	68	35	54
% Year Previous	43	45	31	52	42	39
% Community Service	-	2	3	9	7	3
% Year Previous	5	8	19	-	18	11
% Increased Reporting	7	22	3	4	17	14
% Year Previous	23	34	10	16	11	20
% Written Assignment	4	7	5	2	5	6
% Year Previous	9	6	11	-	7	8
% Expulsion	4	7	14	15	10	9
% Year Previous	18	3	11	32	16	11
% Other	24	11	12	2	26	14
% Year Previous	2	3	19	-	6	12
Total Percent	100	100	100	100	100	100
N	46	187	75	47	58	413
Types of Rewards						
% Curfew Extension	5	1	5	-	1	3
% Year Previous	-	19	-	17	2	7
% Jurisdiction Pass	10	1	21	-	1	8
% Year Previous	-	14	-	6	21	8
% Phase Advancement	66	72	62	81	74	70
% Year Previous	80	57	77	66	57	65
% Graduation	14	9	10	13	8	11
% Year Previous	20	8	21	30	18	17
% Other	6	17	2	6	16	9
% Year Previous	-	1	2	4	1	2
Total Percent	100	100	100	100	100	100
N	128	151	191	128	92	690

In addition, Figures 6 and 7 (next page) present the overall distribution of rewards and sanctions given over time. They show little change in the overall pattern that various types of sanctions and rewards are utilized over the four year period of examination. Referring to Figure 6, findings indicate that incarceration is consistently the most widely utilized sanction across each of the four time periods. While there has been little variation in the types of sanctions imposed over time, results of the longitudinal analysis indicate that the greatest variation in the distribution of sanctions occurred during Year 3. It should be noted that during Year 3, key actors in the adult drug court participated in a federally funded training event where the use of sanctions and rewards as a technique in behavioral management was a major discussion topic and area of concentration. Figure 7 shows the results of the longitudinal analysis on the distribution of types of rewards. It indicates little has changed over time as well. Phase promotion is consistently the most frequently utilized reward across each of the four time periods. While there has been little variation in the types of rewards given over time, results of the time-series analyses indicate that the greatest variation in the distribution of rewards occurred during the first two years of the program's operation. Here, use of "Other" rewards – primarily tangible rewards such as gift certificates – was much more frequently administered.

Figure 6. Types of Sanctions -Time Series Distribution

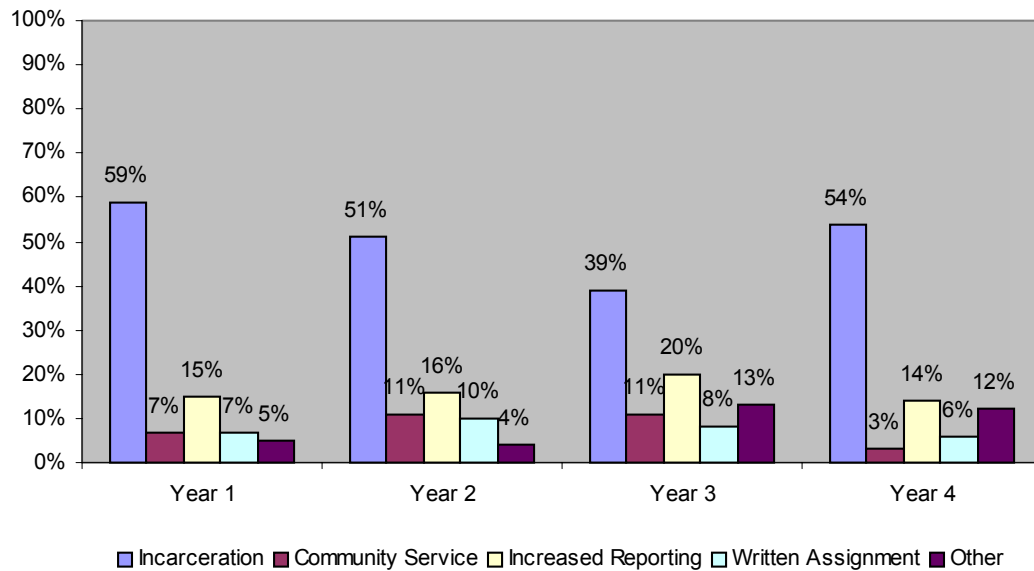
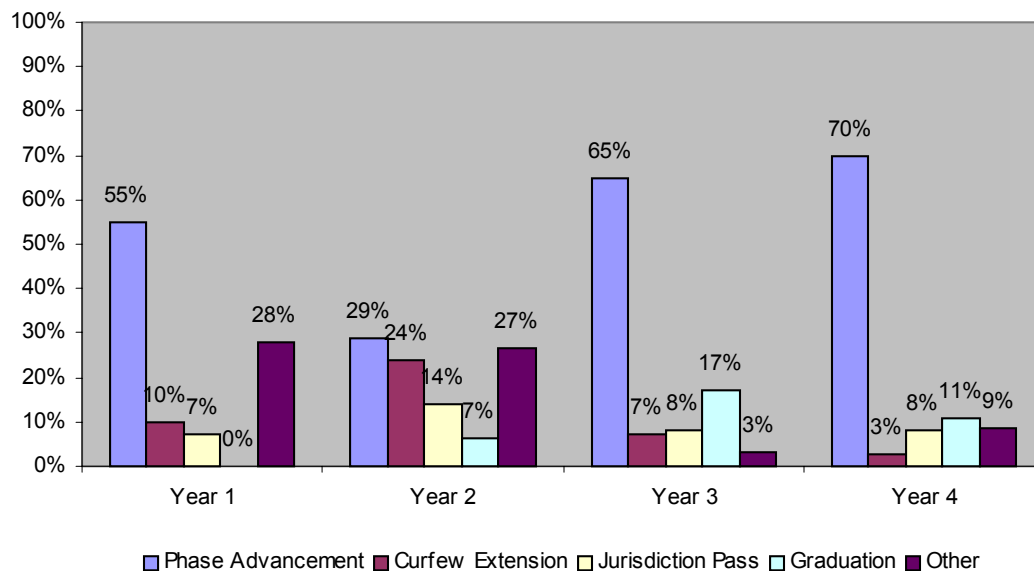


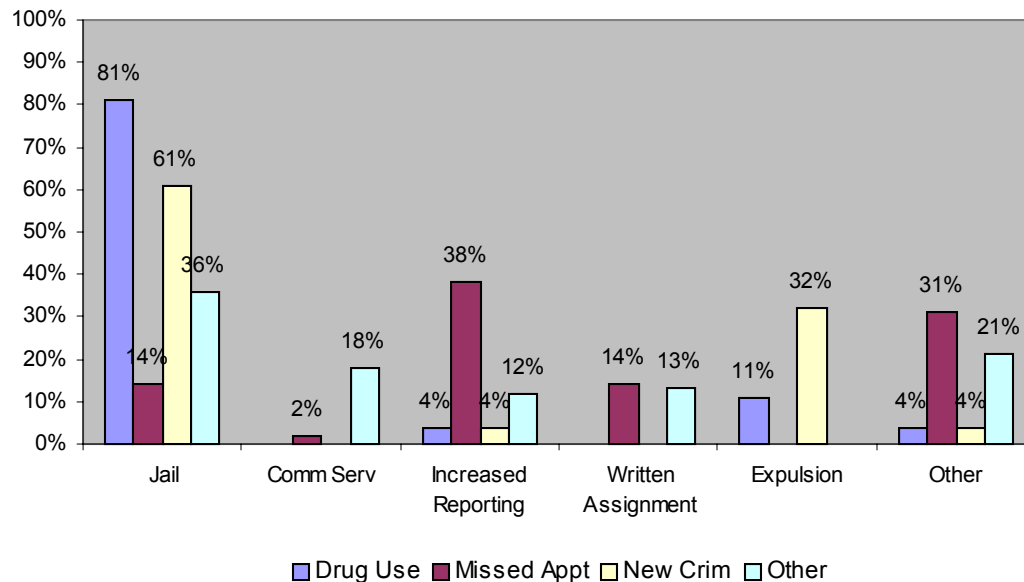
Figure 7: Types of Rewards -Time Series Distribution



While the data presented thus far illustrates the use of sanctions and rewards, they do not provide information about how sanctions and rewards operate, what infractions are sanctioned or whether sanctions are graduated. For example, do people receive similar sanctions for similar infractions? In order to examine this issue, the research team examined sanction data for various infractions of the drug court contract - positive drug screens, missing scheduled appointments and new criminal conduct. That analysis indicates that sanctions for drug use or participation in new criminal conduct will almost certainly result in either incarceration or program expulsion. Whereas less serious infractions (e.g.: missing a scheduled appointment) is more likely to result

in a mix of consequences such as increased reporting requirements (38%), written assignments (14%), incarceration (14%) and “other” sanctions such as increased attendance at treatment, level demotion and increased drug testing.

Figure 8: Types of Sanctions Imposed for Non-Compliance (Dec 03 – Nov 04)



Sanction data was further examined to assess whether sanctions were graduated. Table 10 examines the types of sanctions imposed upon those participants who violated one of the most serious infractions of the drug court contract - positive drug use.

Overall, the most frequent response to a positive drug test is incarceration (81%) followed by program expulsion (11%). Findings in Table 10 indicate variations among the five drug court sites in the use of incarceration as a response for drug use among participants. For example, the use of incarceration as a sanction ranges from a low of 50% in Court E to a high of 89% in Court B. It should be highlighted that in Court E, use of incarceration as a sanction for drug use decreased by 35% from the previous year.

Table 10: Cross-site Comparisons of Participants Sanctioned for Drug Tests

	<i>Court A</i>	<i>Court B</i>	<i>Court C</i>	<i>Court D</i>	<i>Court E</i>	<i>Total</i>
Sanctions Given for Positive Drug Tests						
% Jail	73	89	83	88	50	81
% Year Previous	82	88	81	73	85	83
% Expulsion	9	10	12	9	20	11
% Year Previous	12	10	11	27	10	13
% Other	18	1	5	3	30	8
% Year Previous	6	2	8	-	5	4
Total Percent	100	100	100	100	100	100
Number of Tests	22	70	40	33	20	185

Data presented in Table 11 controls for the temporal ordering of sanctions for consecutive positive drug screens. That is, we examined the sanctions imposed on participants for their first, second, third and successive positive drug test. Since incarceration is the most widely utilized sanction for positive drug use, we expect there would be little or no systematic increases in the use of jail sanctions by the number of times positive drug use is detected. As shown in Table 11, the severity of sanctions – not the type of sanction – is graduated for persistent drug use. Participants are likely to be incarcerated for their first positive drug screen. However, the likelihood of incarceration actually decreases across the second, third and fourth and subsequent positive drug test. And, as the likelihood of incarceration decreases, the likelihood of program expulsion increases.

Table 11: Temporal Order of Sanctions for Positive Drug Tests

<i>Positive drug tests</i>	<i>1st Positive</i>	<i>2nd Positive</i>	<i>3rd Positive</i>	<i>4th to 6th Positive</i>	<i>Total</i>
Types of Sanctions Given for Positive Drug Tests					
% Jail	90	79	69	60	81
% Year Previous	84	87	84	69	83
% Expulsion	2	13	23	35	11
% Year Previous	6	13	16	31	13
% Other	8	8	8	5	8
% Year Previous	10	-	-	-	4
Total Percent	100	100	100	100	100
N	91	48	26	20	185

Is the severity of incarceration positively associated with successive positive drug use? Referring to Table 12, we find that participants were jailed for a mean of 11 days and median of 7 days for the first positive drug screen. During the past year, length of jail sanctions are increasing in severity 7 days from the first positive to the fourth and subsequent positive drug test. However, they are less graduated than findings presented from the previous year.

Table 12: Temporal Ordering of the Severity of Jail Sanctions for Positive Drug Tests

<i>Positive drug tests</i>	<i>1st positive</i>	<i>2nd positive</i>	<i>3rd positive</i>	<i>4th to 9th positive</i>	<i>Total</i>
% of Participants Receiving Jail Sanction	90%	79%	69%	60%	81%
Year 4 Number of Days in Jail					
Mean	11	23	16	18	15
Median	7	7	7	7	7
Range	1-120	2-180	3-125	2-90	1-180
N	83	37	19	12	151
% of Participants Receiving Jail Sanction	84%	87%	84%	69%	83%
Year 3 Number of Days in Jail					
Mean	7	10	12	21	10
Median	7	7	7	24	7
Range	1-30	1-45	3-75	1-45	1-75
N	64	38	25	16	143

Table 13 presents cross-site comparisons of the severity of sanctions for positive drug use. In it we find that Courts A and D are the most punitive yielding average lengths of incarceration exceeding 18 days and ranging from 1-120 days and 1-67 days respectively. Recalling from above, we would expect Court E to be the least punitive as only 50% of participants received a sanction of incarceration for any positive drug screen. And, findings in Table 13 confirms that Court E is the least punitive with participants typically receiving 4 day jail sentences.

Table 13: Cross-site Comparisons of Severity of Jail Sanctions for 1st Positive Drug Test

	<i>Court A</i>	<i>Court B</i>	<i>Court C</i>	<i>Court D</i>	<i>Court E</i>	<i>Total</i>
Sanctions Given for Positive Drug Tests Year 4						
% 7 days or less	64	70	87	40	86	70
% 7 days to 14 days	-	23	-	20	-	11
% Exceeding 14 days	36	7	13	40	14	19
Total Percent	100	100	100	100	100	100
N	11	27	23	15	7	83
Mean	18.9	8.4	6.8	18.1	6.4	11
Median	3.0	7.0	4.0	10.0	4.0	7.0
Range	1-120	2-30	2-30	1-67	1-20	1-120
Total Jail Days	208	227	156	271	45	907

Substance Abuse Treatment and Ancillary Services

Substance abuse treatment providers servicing Maine's Adult Drug Court use a formalized treatment curriculum consistent with components of effective treatment services (Lamb, et al, 1998). The Differential Substance Abuse Treatment (DSAT) program was implemented in Maine's Statewide Adult Drug Court Program in 2001. Through extensive training, monitoring and supervision, this new treatment initiative is intended to improve both the consistency and overall quality of care received by participants. Specifically designed for offender populations with substance abuse problems, the DSAT curriculum is a manualized treatment program. By introducing manuals and workbooks for clients undergoing treatment, this new system makes it possible to deliver a theoretically sound standard of treatment across the state. The goal of the DSAT initiative is to increase retention in treatment and increase successes in treatment outcomes among addicted offenders. An evaluation of the DSAT program is currently underway⁸.

⁸ The DSAT evaluation is the second of three reports in this series. It is being conducted under a cooperative agreement between Maine's Office of Substance Abuse and the University of Southern Maine and a subcontract between the University of Southern Maine and the University of Maryland, Bureau of Government Research. Results of that evaluation are anticipated to be released in the spring of 2005.

DSAT - Treatment Phases

The drug court program consists of five phases of which three of these phases include attending treatment sessions provided by the DSAT protocol. The fourth phase occurs during the drug court program and consists of individualized treatment. The fifth phase occurs upon graduation from the drug court and is a post-program aftercare phase. The five phases of the DSAT program are outlined as follows:

Phase I - Orientation/Motivation Phase (Approx. 4-10 weeks)

Phase II - Intensive Phase (Approx. 10-15 weeks)

Phase III - Maintenance Phase (Approx. 12-24 weeks)

Phase IV - Post DSAT Individualized Treatment Phase (Approx. 12 weeks)

Phase V- Post Program Completion Aftercare

While DSAT is intended to improve the integrity of the treatment program by making it possible to deliver a consistent modality across sites, questions remain as to whether DSAT phases *as delivered* are meeting this goal. Table 14 examines the length of time the 169 clients who graduated from drug court participated in each phase. The first row presents the actual length of time it took participants to complete the entire program. This is followed by with the actual amount of time that graduates participated in each phase of treatment.

Table 14: Cross-site Comparisons of DSAT Phase Completion Rates for Program Graduates

		<i>Court A</i>	<i>Court B</i>	<i>Court C</i>	<i>Court D</i>	<i>Court E</i>	<i>Total</i>
<hr/>							
Length of Drug Court: 52 weeks							
Actual Length for Graduates							
	Mean	55	67	58	61	57	59
	Median	53	68	53	57	54	54
	Range	50-82	45-113	34-97	50-94	50-89	34-113
	N	31	32	42	28	36	169
Scheduled Length of Phase 1: 4-10 weeks							
Actual Length							
	Mean	6	7	12	13	9	9
	Median	5	8	9	12	9	9
	Range	1-17	1-25	3-31	7-25	1-22	1-31
	N	31	32	42	28	36	169
Ideal Length of Phase 2: 10-15 weeks							
Actual Length							
	Mean	12	16	11	12	13	13
	Median	10	13	9	11	13	12
	Range	4-23	6-46	3-34	7-28	3-28	3-46
	N	31	32	42	28	36	169
Ideal Length of Phase 3: 12-24 weeks							
Actual Length							
	Mean	13	16	11	10	13	13
	Median	11	15	9	11	14	11
	Range	3-50	6-30	2-31	4-21	1-30	1-50
	N	31	32	42	28	36	169
Ideal Length of Phase 4: 12 weeks							
Actual Length							
	Mean	8	9	8	7	8	8
	Median	9	10	6	6	6	7
	Range	1-33	1-25	1-25	1-23	1-24	1-33
	N	31	32	42	28	36	169

The drug court program is designed to be completed within a year. The actual amount of time most graduates participated in the program approximates that 52 week standard. The median length of time in drug court attended by graduates is 54 weeks and the mean is 59 weeks. Some participants completed the program in significantly less time - 34 weeks while others completed the program in significantly more time - 113 weeks. Some graduates participated in treatment phases, particularly with respect to Phases 3 and 4, for intervals well below those established by program protocols. In sum, our data indicates fairly wide variations in the length of participation in what is intended to be a standardized substance abuse treatment program.

Ancillary Services

The fourth *key component* of drug courts is to provide clients access to a continuum of alcohol, drug and other related treatment and rehabilitation services recognizing that substance abuse treatment alone often fails to meet the multiple needs of the offender population. A properly designed drug court provides a continuum of care that offers an array of ancillary services both during participation in drug court and after program completion.

To date, many drug court participants (37%) have been able to avail themselves of a number of ancillary services including: batterer's intervention programs, crisis intervention, mental health, residential, health care, employment, educational, and transportation services. Table 15 provides cross-site information about the types of ancillary services utilized by the 111 clients who were newly admitted to the drug court program. Over the past twelve months, 37% of these 111 participants utilized at least one type of ancillary service and 20% utilized multiple types of ancillary services. Put another way, 63% of the clients did not utilize ancillary services over the past year. This represents a marked reduction (approximately 50%) from findings presented in the previous year. There are also significant cross-site variations in the percent of participants accessing ancillary services. The percent of participants accessing ancillary services range from a low of 9% in Court A to a high of 96% in Court D. Overall, use of psychiatric services and additional substance abuse treatment services are the most frequently utilized ancillary services.

Table 15: Overall Distribution of the Types of Ancillary Services

	<i>Maine Adult Drug Treatment Court Sites</i>					
	<i>Court A</i>	<i>Court B</i>	<i>Court C</i>	<i>Court D</i>	<i>Court E</i>	<i>Total</i>
% Utilize Ancillary Services	9	40	11	96	35	37
Year Previous	64	67	41	89	40	61
% Multiple Ancillary Services	0	13	0	83	4	20
Year Previous	54	48	31	83	22	48
Types of Ancillary Services						
Additional SA Tx	-	-	-	96	-	20
Psychiatric Services	-	27	11	74	4	23
Housing	-	13	-	4	-	3
Medical	-	7	-	-	17	5
Educational/Vocational	-	-	-	-	9	2
Other	9	13	-	61	8	18
N	23	15	27	23	23	111

Conclusions and Recommendations

Drug treatment courts are one of the major justice reforms in the past 100 years (Goldkamp: 2001, GAO, 2005). Combining the coercive power of the criminal justice system with substance abuse treatment, drug courts provide new linkages between criminal justice and substance abuse treatment systems. The drug treatment court model integrates treatment, drug testing, probationary supervision, and case management with the specialized feature of the presiding judge overseeing the progress of the addicted offender's program of treatment and rehabilitation. The GAO (2005) concludes drug courts represent a successful alternative to traditional probationary supervision for chronic drug offender populations. The GAO concludes:

Overall, positive findings from relatively rigorous evaluations in relation to recidivism, coupled with positive net benefit results, albeit from fewer studies, indicate that drug court programs can be an effective means to deal with some offenders. These programs appear to provide an opportunity for some individuals to take advantage of a structured program to help them reduce their criminal involvement and their substance abuse problems, as well as provide a benefit to society in general (GAO, 2005).

Over the past four years, Maine has successfully operated an adult drug treatment court in five locations across the state serving over two-thirds of the state's population. The findings reviewed in this report show that program operations are proceeding as implemented. The report does support the efficacy of the drug court program but not necessarily its effectiveness⁹. Drug court practices at various sites can be improved. Our research findings point a number of ways to improve the operations of various components of Maine's adult drug court program. If these suggestions are implemented there will be improvements in the effectiveness of the program. Those successes will be realized in increased graduation rates, reduced rates of recidivism and lowered overall costs.

- Productivity

There has been a decline in the *rate* of admissions despite the fact that the number of admissions has remained constant over time. This affects costs and retention.

- Successful Program Completion

The graduation rate of 56% is above national averages. Research indicates that program graduates are the least likely to re-offend post-program completion.

- Sanctions

While Maine's drug courts use more rewards than sanctions, the severity of the sanctions tend not to be graduated.

As Marlowe (2005) notes, "there are different standards of proof for establishing the *efficacy* of an intervention as opposed to its *effectiveness*. Efficacy refers to whether the intervention *can* be successful when it is properly implemented under controlled conditions, whereas effectiveness refers to whether the intervention *typically is* successful in actual clinical practice. Efficacy is a necessary, but not sufficient, condition for effectiveness, and is ideally established through randomized, controlled, experimental studies (e.g., Campbell & Stanley, 1966).

- Home Visits

Over the past 12 months, participants received approximately 1.2 unscheduled home visits per month. This represents an increase from the previous year but still lower than the 2 visits per month policy recommended by the statewide steering committee.

- Drug testing Protocol and Drug Use

In the past year, there has been a reduction in the frequency of drug testing of new participants that violates the program's protocols which may have resulted in more drug use. The number of positive tests is negatively associated with the number of tests given suggesting that the infrequent use of drug tests fails to serve as an effective deterrent.

- Ancillary Services

There has been a marked reduction (approximately 50%) in the use of ancillary services among participants from findings presented in the previous year.

The findings reported here indicate there are broad variations in drug court practices and operations across sites in Maine. On the one hand, this suggests the drug court model has been adapted to various local needs. On the other hand, some of the wide variations in practices and operations are actually in direct conflict with statewide protocols (e.g. drug testing, treatment attendance, home visits). While there might be pause for alarm, it should be remembered that the process of implementing drug court programs does not happen overnight and in many cases this process can take years. Nevertheless, as Maine's drug court programs continue to evolve, key actors may take great comfort in knowing there is now solid evidence showing drug court programs are effective in reducing recidivism for a certain offender populations in Maine (Anspach and Ferguson, 2005) and across the nation (GAO, 2005). Findings from the GAO indicate lower percentages of drug court program participants than comparison group members were rearrested or reconvicted and that program participants had fewer recidivism events than comparison groups.

Part II – Outcome Evaluation of Maine’s Statewide Adult Drug Treatment Court Program

March 25, 2005

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Overview¹

This is the second of three reports evaluating Maine's Adult Drug Treatment Court Program. While the first report focused on an examination of various core operational components of the drug court model (e.g.: supervision, drug testing, sanctions), this report examines the overall effectiveness of Maine's adult drug court programs on reducing recidivism. Using a comparison group of substance abusing offenders who did not participate in the drug court, the report examines the overall impact of the program on reducing recidivism and examines the correctional cost/savings associated with those outcomes. In short, the report addresses two basic questions: Are Maine's adult drug court programs effective in reducing crime? Are Maine's adult drug court programs cost effective?

Nationally, there is growing evidence that adult drug court programs are both effective in reducing crime and cost effective in managing offenders who are in the revolving door of the criminal justice system because of substance abuse. For example, a recent review of 23 program evaluations conducted by the United States General Accountability Office (GAO) suggests that adult drug court programs can reduce recidivism for certain offender populations compared to other criminal justice alternatives, such as probation². As a result of the GAO study, the proposed 2006 federal budget includes \$30.5 million for the expansion of drug court programs nationally³.

The analysis that follows is based on a comparison of rearrest rates for 181 adult drug court participants who either successfully completed the program and graduated, or were expelled, with rearrest rates for 181 adult offenders adjudicated through traditional criminal case processing. In addition to providing an analysis of post-program recidivism and a correctional cost/savings estimate, the report also provides an analysis of program completion outcomes. Consistent with findings from other state and local jurisdictions, our findings indicate that Maine's adult drug court program is a success across each of these dimensions. In sum, Maine's adult drug court's high rate of successful program completion coupled with a lower rate of recidivism has generated a net savings in correctional related expenditures. Included in this report are some of the basic findings:

- ❑ Program completion rates for Maine's adult drug court program are consistent with and slightly higher than national averages;
- ❑ Fewer drug court participants recidivated during a 12 month post-program follow-up than a comparison group of adult offenders traditionally adjudicated and drug court graduates were the least likely to re-offend overall;
- ❑ Adult drug court participants were less likely than the comparison group to be rearrested on felony charges and less likely to commit property and violent crimes.

¹Maine's Office of Substance Abuse in consultation with Maine's Judicial Department, contracted researchers from the Department of Sociology at the University of Southern Maine to evaluate the program. Dr. Donald F. Anspach and Andrew S. Ferguson serve as co-principal investigators for the project working in collaboration with research staff Laura Phillips and Jody Raio. The Honorable Roland A. Cole from Maine's Judicial Department, Linda Frazier from Maine's Office of Substance Abuse, and Elizabeth Simone, Director of Maine Pre-Trial Services have served as the primary adult drug court representatives involved in the evaluation.

² United States General Accountability Office. Report to Congressional Committees. "Adult Drug Courts: Evidence Indicates Recidivism Reductions and Mixed Results for Other Outcomes." February, 2005.

³ Associated Press. "Drug Czar Pushes to Expand Drug Courts." February 23, 2005.

- ❑ The adult drug court program has generated a net correctional savings of \$5,740,177.00. These savings are largely derived from the incarceration costs that would have been incurred had drug court graduates been adjudicated through traditional criminal case processing.
- ❑ For every dollar spent on processing these offenders through drug court, there was an overall net correctional savings of \$2.13.

The report is organized as follows: The next section describes the research techniques employed to assess program outcomes. The third section examines factors related to successful program completion or graduation. This is followed by an assessment of post-program recidivism outcomes as measured by rearrest. The fifth and final section provides an estimate of correctional cost/savings resulting from the program's operation.

Methods

Ideally, an experimental design with random assignment of participants to experimental and control groups should be used to prove the effectiveness⁴ of drug courts in reducing costs and crime. Since this design was not feasible, the study utilized quasi-experimental techniques.

Drug court participants - the experimental group - and the control group were matched across a number of demographic characteristics. The non-drug court comparison group was constructed by matching characteristics of participants with information about other drug involved offenders located in data files within Maine's Office of Substance Abuse Treatment Data System (TDS) and the Adult Drug Court Management Information System (ADTC MIS) developed by the research team. Recidivism information was obtained from Maine's Department of Public Safety. Recidivism data presented in this paper reflects all post-program felony and misdemeanor arrests within a twelve month follow-up period.

The total sample consists of 362 drug involved offenders - 181 individuals who had participated in the drug court and the comparison group of 181 non-drug court participants⁵ who were adjudicated adult offenders in Maine with substance abuse problems. In order to reduce potential sources of selection bias, these non-drug court offenders were matched with drug court participants across a variety of demographic characteristics including: date of entry, age, race, gender, drug of choice, county of residence and employment status. The experimental group consists of all 181 drug court participants who were discharged from the drug court program for twelve or more months prior to the study. Of these, 92 were expelled from the program and there were 89 individuals who had successfully completed the drug court program and graduated.

⁴As Marlowe (2005) notes, "there are different standards of proof for establishing the *efficacy* of an intervention as opposed to its *effectiveness*. Efficacy refers to whether the intervention *can* be successful when it is properly implemented under controlled conditions, whereas effectiveness refers to whether the intervention *typically is* successful in actual clinical practice. Efficacy is a necessary, but not sufficient, condition for effectiveness, and is ideally established through randomized, controlled, experimental studies (e.g., Campbell & Stanley, 1966).

⁵ This contemporaneous control group was formed from defendants who received conventional case processing during the same period as the drug court participants. See GAO, 2005. Adult Drug Courts: Evidence Indicates Recidivism Reductions and Mixed Results for Other Outcomes." p.17-18.

Ideally, the research team would have liked to construct a control group using a pool of offenders for whom drug court participants could be matched on a variety of characteristics other than simple demographics (e.g.: offense charges, sentencing disposition, measures of criminal risk, etc.) However, logistical problems were encountered in collecting information from the MEJIS data system maintained by the Maine Judicial Branch and serious delays in obtaining approvals from Maine's Department of Corrections⁶ prevented us from accessing their CORIS database. These issues and contractual time constraints compromised the research. Hence, the research team used the OSA Treatment Data System (TDS) as a pool from which to draw offenders to serve as the comparison group. This method provided one advantage in that the research team could select on comparison group subjects with known substance abuse problems, however, it also served to be a disadvantage in that not all drug court participants in this sample were able to be identified in the TDS. As a result, the researchers were forced to construct a contemporaneous control group of comparison subjects who did not participate in the drug court program (TDS, n=82) with adult offenders who were referred but not admitted to the drug court program (ADTC MIS, n=99)⁷. We do not anticipate that future research using this type of comparison group will be compromised as many of the issues previously mentioned have now been resolved.

The cost/savings analysis is based on the entire sample of 362 drug involved offenders – the 181 discharged drug court participants and 181 non-drug court participants. However, the analysis of recidivism is based on a subset of these cases. Twenty-six (26) expelled drug court participants are excluded from the recidivism analysis as they were still incarcerated during a portion of the 12 month follow-up. A total of sixty-six (66) of the 92 expelled drug court participants had sufficient post-program and post-incarceration exposure time, or “*time at risk*” to be included in the 12-month follow-up. For example, a participant discharged from the drug court or released from custody on January 1, 2002 was tracked for an additional 12 months until December 31, 2002 to identify whether any new criminal activity had occurred.

Outcomes: Graduation and Recidivism

When participants graduate from drug court, they have successfully completed an intensive and challenging program. For approximately fifty-two weeks, they have complied with the performance expectations of the drug court including no new criminal conduct, abstaining from alcohol and drug use, attending sessions of substance abuse treatment and appearing at weekly status hearings before a designated program judge. Nationally, approximately half of all adult offenders (48%) successfully complete drug court programs. Consistent with the national average, the graduation rate for this sample of drug court participants in Maine is forty-nine percent (49%)⁸.

This section of the report summarizes findings related to two basic outcomes of the drug court program – successful program completion through graduation and findings about factors related to post-program recidivism outcomes as measured by rearrest. In the first section we

⁶ The research team received final permission from the Maine Department of Corrections to review probation records on February 18, 2005. As a result, we anticipate that future research on adult drug court programs in Maine will be greatly enhanced.

⁷ Special acknowledgements should be extended to the Maine Department of Public Safety for providing recidivism data as well as to the Office of Substance Abuse and local treatment providers for assisting the research team in identifying comparison group subjects. Were it not for these efforts, this report would not have been made possible.

⁸ As of November 30, 2004, the rate of successful program completion for the overall sample in Maine's Adult Drug Treatment Court is 56%. See Anspach and Ferguson (2004), Part 1: Process Evaluation of Maine's Adult Drug Treatment Court Program.

compare differences between characteristics of graduates and expelled participants and describe the impact of core components of the drug court program on discharge and post-program recidivism outcomes. The dependent variables are rates of program completion (0-100%) and rates of post-program recidivism (0-100%). T-tests are performed on all dichotomous variables and analysis of variance is presented for all continuous variables. Only findings rising to the level of statistical significance are discussed.

Table 1 summarizes overall information about the characteristics of drug court participants, their drug using habits, and how these characteristics are related to graduation and recidivism outcomes. The first column presents information about characteristics of all drug court participants the majority of whom can be characterized as white, male, poly-substance drug abusers with severe (Level 4 and 5) substance abuse histories.

Characteristics of participants who graduated from drug court are shown in the third and seventh column of Table 1 and second and third columns of Table 1a. There are three statistically significant differences between characteristics of graduates and those who were expelled: 1) participants who were employed at the time of their admission to the program (62%) are statistically more likely to complete the program than participants who were not employed (31%); 2) participants who had a significant partner (59%) were also significantly more likely to graduate than participants who did not have a significant partner (39%); and 3) participants living in shelters or half-way houses were significantly less likely to graduate from the drug court program than those who were not.

To assess the effectiveness of the program in reducing crime, the study examined differences in recidivism outcomes of drug court participants who were and were not arrested within 12 months after being discharged from the program. Overall, most drug court participants did not commit crimes during the twelve-month follow-up. Overall, 23% of the participants were arrested within one-year of graduating from the program or one year of being released from custody for those participants who were expelled.

Characteristics of participants who were arrested during the 12 month follow-up are presented in the fourth and eight columns of Table 1 and fourth and fifth columns of Table 1a. They indicate that there are two statistically significant differences between participants who did and did not recidivate in the 12 month follow-up. Dually diagnosed participants (32%) were more likely to be re-arrested than non-dually diagnosed participants (17%). And, the age at which these participants first became involved in the criminal justice system is also significant. Referring to Table 1a, the average age for those participants who recidivated in the twelve-month follow-up (20) is significantly lower than those participants who did not recidivate (24).

Table 1: Participant Characteristics by Discharge Status and Recidivism Outcomes

Demographics	% Total	% Grad	% Recidivate	Demographics	% Total	% Grad	% Recidivate
Gender				Race			
Female	25	42	16	White	94	27	22
Male	75	52	25	Non-White	6	51	36
Total	100	49	23	Total	100	49	23
Employed ^{***G}				Partner ^{***G}			
Yes	59	62	25	Yes	52	59	21
No	41	31	19	No	48	39	24
Total	100	49	23	Total	100	49	23
Living Situation ^{***G}				CSA			
Independently	20	51	19	2	7	33	17
Significant Other	18	69	25	3	12	64	14
Friend or Relatives	53	48	24	4	51	46	22
Other	9	12	18	5	29	53	28
Total	100	49	23	Total	100	49	23
High School Grad				Poly User			
Yes	52	48	19	Yes	81	47	25
No	48	51	26	No	19	57	14
Total	100	49	23	Total	100	49	23
Drug of Choice				Drug Frequency			
Alcohol	33	58	18	Daily	74	49	22
Opiates	39	41	24	4-6 Times/Week	10	47	26
Other	28	49	26	2-3 Times/Week	15	50	21
Total	100	49	23	Total	100	49	23
On Probation				Prior Tx			
Yes	76	46	26	Yes	69	49	26
No	24	59	14	No	30	50	14
Total	100	49	23	Total	100	49	23
Dual Diagnosis ^{*R}				On Rx Medication			
Yes	36	50	32	Yes	36	58	20
No	64	49	17	No	63	44	24
Total	100	49	23	Total	100	49	23

***p<.001, **p<.01, *p<.05; two-tailed tests

Table 1a: Participant Characteristics by Program Completion and Recidivism Outcomes

		<i>Graduated (n=89)</i>	<i>Expelled (n=92)</i>	<i>Recidivism (n=41)</i>	<i>No Recidivism (n=140)</i>	<i>Total (n=181)</i>
Age	Mean	31	29	28	30	30
	Median	29	27	27	29	28
	Range	19-58	19-55	19-44	19-58	19-58
Age at Use	Mean	13	13	13	13	13
	Median	13	13	13	13	13
	Range	4-20	7-20	7-17	4-20	4-20
Age at First Offense **R	Mean	23	23	20	24	23
	Median	20	20	19	20	20
	Range	11-56	14-44	11-37	14-56	11-56
Amount of Money Spent to Support Habit	Mean	\$487	\$686	\$507	\$612	\$572
	Median	\$205	\$400	\$500	\$609	\$300
	Range	\$10-4500	\$30-5000	\$25-\$2000	\$10-\$5000	\$10-5000
Amount of Money obtained illegally weekly	Mean	\$356	\$534	\$330	\$460	\$427
	Median	\$70	\$200	\$200	\$430	\$150
	Range	\$0-4500	\$0-5000	\$0-\$1800	\$0-\$5000	\$0-5000
Unsuspending Sentence if Unsuccessful (Hammer)	Mean months	19.5	18.5	18.3	19.2	19.0
	Median	18.0	15.0	15.0	18.0	17.6
	Range	0-96	0-84	0-96	0-84	0-96

***p<.001, **p<.01, *p<.05; two-tailed tests

Table 2 examines the relationship between various core components of the drug court model on program completion outcomes. As reported in other studies (GAO, 2005), compliance with program requirements is positively associated with the successful completion of the program and negatively associated with being arrested.

The findings in Table 2 indicate that program graduates, as predicted, were more compliant with program requirements than those participants who were expelled. Graduates had lower rates of positive drug tests (2%) compared to expelled participants (17%); were also more frequently tested than expelled participants; and, as expected, less likely to have been arrested while participating in the drug court program. Utilization of ancillary services was also more frequent among program graduates (73% versus 51%) particularly with respect to receiving educational/vocational services and receiving additional substance abuse treatment counseling.

Data presented in Table 2 also examines the relationship between various core components of the drug court model on recidivism outcomes. Results of the analysis indicates that there was only one core component of the drug court model that was statistically significant between those who recidivated in the 12 month follow-up than those who did not. Those participants who accessed ancillary services while participating in the drug court were statistically less likely to recidivate than those who did not (64% versus 56%).

Table 2: Program Information by Program Completion and Recidivism Outcomes

		<i>Graduated (n=89)</i>	<i>Expelled (n=92)</i>	<i>Recidivism (n=41)</i>	<i>No Recidivism (n=140)</i>	<i>Total (n=181)</i>
Weekly Drug Tests ^{***G}	Mean	1.1	0.8	1.1	1.0	1.0
	Median	1.2	0.7	1.0	0.9	0.9
	Range	0.5 – 2.45	0 – 3.7	0.3 – 3.7	0.1 – 3.0	0 – 3.7
Percent Positive Drug Tests ^{***G}	Mean	0.02	0.17	.05	.11	0.10
Program Length (weeks) ^{***G}	Mean	57.5	27.3	43.5	41.7	42.1
In Program Arrest ^{***G}	% Yes	9	35	20	23	22
Jail Sanction	% Yes	53	60	63	54	56
% Utilize Ancillary Services ^{**G; *R}		73	51	56	64	62
% Utilize Multiple Ancillary Services ^{**G}		48	28	22	43	38
Types of Ancillary Services						
	Mental Health	30	24	29	26	27
	Education ^{**G}	21	5	10	14	13
	Employment	6	4	10	4	5
	Housing	7	13	12	9	10
	Additional SA Tx ^{**G}	26	11	17	19	18
	Legal	3	2	7	1	3
	Medical	15	10	20	10	12
	Other	30	21	22	26	25

*** p<.001, ** p<.01, * p<.05; two-tailed tests

Graduation Outcomes – Multivariate Analysis

In order to identify the most salient factors differentiating those who successfully completed the drug court program from those who were expelled requires the use of a different statistical technique. To “predict” the overall odds of successful program completion while simultaneously controlling for a number of “independent” or explanatory variables, we utilized step-wise logistic regression techniques. This technique allows the research to test for the combined effects of variations in participant characteristics, drug testing results, attendance at treatment, sanctions and incentives, and participation in ancillary services on the overall odds of successful program completion⁹.

Table 3 presents results of the step-wise logistic regression model for the odds of successful program completion. The analysis indicates that five factors (two participant characteristics and three program related variables) are significant predictors of successful program completion. The first variable pertains to participant employment status at the time of entering the drug court program. Participants who were employed at the time of entering the drug court program were 3 times more likely to graduate from the program than those participants who were not employed (refer to the column labeled *Exp B*). Second, participants who were more frequently tested were also more likely to graduate from the drug court program. The third variable of significance relates to the abstinence requirement of the drug court program. Here, as positive drug use increases, the likelihood of successful program completion decreases. And, as expected, in-program recidivism is also a significant predictor. Participants

⁹ An insufficient number of graduates prohibit a site by site examination.

who were arrested at some point during their participation in the drug court program were 5.58 times less likely to graduate than those who were not arrested during the program. (This is calculated by taking the inverse of the odds ratio *Exp B*.) Lastly, is the variable pertaining to the participant's age at first arrest. As the participant's age at first arrest increases, the likelihood of successfully completing the program increases.

Table 3: Odds Ratios for the Step-wise Logistic Regression on Graduation Outcomes for Maine's State-wide Adult Drug Treatment Court

<i>Variables</i>	<i>B</i>	<i>S.E.</i>	<i>Wald</i>	<i>Sig.</i>	<i>Exp(B)</i>
Employed at Admission	1.103	.406	7.395	.007	3.013
Weekly Testing	1.068	.338	9.975	.002	2.910
Percent Positive tests	-17.082	4.220	16.387	.000	.000
Age at First Arrest	.059	.029	3.984	.046	1.060
In Program Arrest	-1.719	.512	11.290	.001	.179
Constant	-1.926	.853	5.093	.024	.146

^aOnly the significant terms tested in the models are presented in order to conserve space.

Post Program Re-Arrests – Multivariate Analysis

Similar to the analysis presented above, the research team also utilized multi-variate statistical techniques so as to identify the most salient factors differentiating participants who recidivated in the 12 month post-program follow-up from those who did not. Table 4 (Below) presents results of the step-wise logistic regression model for the odds of recidivism. Three factors (two participant characteristics and one program related variable) are significant predictors of recidivism. Similar to findings resulting from the bi-variate analysis, the first variable pertains to those participants who had a dual diagnosis classification. Here, those participants who had a dual diagnosis were 4 times more likely to recidivate within the 12 month follow-up than those participants who did not have a dual-diagnosis (refer to the column labeled *Exp B*). The second variable pertains to the amount of incarceration time a participant faces should they not successfully complete the drug court program. Findings indicate that as the length of incarceration time increases, the odds of recidivism decreases. The third variable relates to program completion status. Here, participants who graduated from the drug court program were 5 times less likely to recidivate in the twelve month follow-up than those participants who were expelled.

Table 4: Odds Ratios for the Step-wise Logistic Regression on Recidivism Outcomes for Maine's State-wide Adult Drug Treatment Court

<i>Variables</i>	<i>B</i>	<i>S.E.</i>	<i>Wald</i>	<i>Sig.</i>	<i>Exp(B)</i>
Dual Diagnosis	1.395	.511	7.460	.006	4.033
Hammer	-.061	.028	4.690	.030	.941
Graduation	-1.650	.683	5.835	.016	.192
Constant	-2.134	1.728	1.524	.217	.118

^aOnly the significant terms tested in the models are presented in order to conserve space.

Recidivism Outcomes – Path Analysis

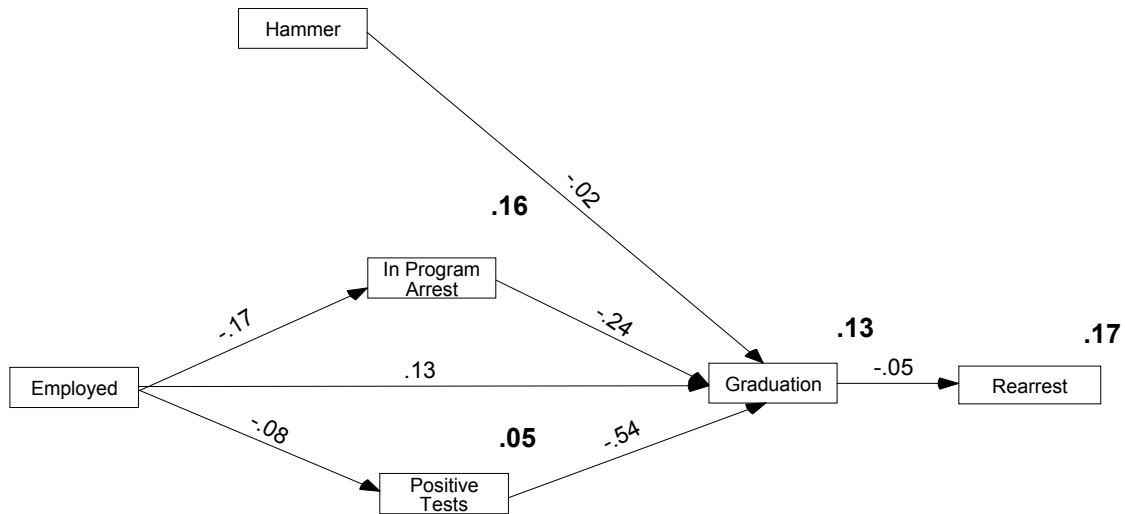
Thus far, findings have been presented about two dependent variables – graduation and post-program recidivism. First, we examined the relationship between participant characteristics and program compliance measures on program completion outcomes. And, the second analysis on recidivism assessed the relationships between background factors, program compliance, and drug court completion status on post-program recidivism outcomes.

Our analysis can scarcely stop at this juncture. We need to know how these variables are related. Here, we attempt to synthesize our findings. The particular analytic technique that we will be using is called path analysis (Duncan, 1960)¹⁰. The findings from the logistic regressions informed the variable selection for the analysis that follows. The path model includes only those variables that were statistically significant in previous analyses. Referring to Figure 1, overall results of the path analysis can be summarized as follows:

- Participants who were employed at the time of their admission to the program were less likely to recidivate during program participation and less likely to have higher rates of positive drug screens.
- As expected, participants who either recidivated during program participation or had higher rates of positive drug screens are less likely to graduate from the drug court program.
- The amount of incarceration time a participant faces should they are expelled from the program also remains significant. As the amount of incarceration time increases, the odds of successfully completing the program decreases.
- Successful completion of the drug court program is the only variable of significance in explaining post-program recidivism outcomes. Participants who graduated from the drug court program were significantly less likely to recidivate in the twelve month follow-up than those participants who were expelled.

¹⁰ Path analysis is unique because it allows us to control for both independent (cause) and dependent (effect) variables, but also intervening or mediating variables. For example, testing positive can serve as both a dependent variable (i.e.: what factors predict the likelihood of testing positive?) as well as an independent variable (what is the impact of testing positive on graduation and recidivism outcomes?). Independent regression techniques do not allow us to control for these dynamics. Hence, using path analysis allows us to provide a more complete, holistic and explicit interpretation of the operant factors that are associated with rates of successful program completion.

Figure 1: Maine Adult Drug Treatment Court Path Model



GFI = 0.97; RMSR = 0.32; Chi-square = 16.2; df = 8; prob. = .04.; N = 181

Notes. Standardized path coefficients are located near the head of the arrows and the variance explained for each intervening and dependent variable is in bold, outside of the top-right hand corner of the boxes. All paths are significant ($p < .05$; two-tailed tests).

Post-Program Recidivism Outcomes of the Experimental and Control Groups

The strongest test of criminal justice diversion programs is the extent they actually save money and reduce crime. Rigorous research on adult drug court programs, nationally, has shown reductions in criminal activity among drug court participants. (GAO, 2005). This section of the report replicates these studies by assessing the extent this outcome occurs in Maine. Does participation in drug court reduce the likelihood of subsequent criminal activity?

Overall, findings suggest positive program effects with fewer adult drug court participants being re-arrested than a comparison group and program graduates being the least likely to re-offend overall. Twelve-month post-program recidivism information is presented in Figure 2 and Table 5 for the comparison group and for the drug court - including both graduates and expelled participants. Twelve-month post-program recidivism information is presented in Table 6 for both the drug court group as well as for the two categories of comparison subjects – those not admitted to the drug court program and those who were neither referred nor accepted¹¹.

Findings in Tables 5 and 6 indicate that fewer drug court participants (26%) had post-program arrests than the comparison group of adult offenders traditionally adjudicated (30%). More importantly, fewer graduates (20%) than expelled participants (35%) or the comparison group (30%) were arrested during the 12 month post-program follow-up. Although these overall differences are not statistically significant, they are in the expected direction with fewer drug court participants being arrested and program graduates being the least likely to recidivate than

¹¹ T-tests were performed to determine whether differences in arrests rates were statistically significant. No statistically significant differences were found.

any other grouping. Findings also indicate that adult drug court participants were less likely than the comparison group to be rearrested on felony charges (6% versus 10%) and less likely to commit property (4% versus 8%) and violent crimes (5% versus 7%). Refer to Appendix A and Appendix B for a detailed analysis of the specific instant offense and post-program offense charges.

Figure 2: Post-Program Recidivism Outcomes

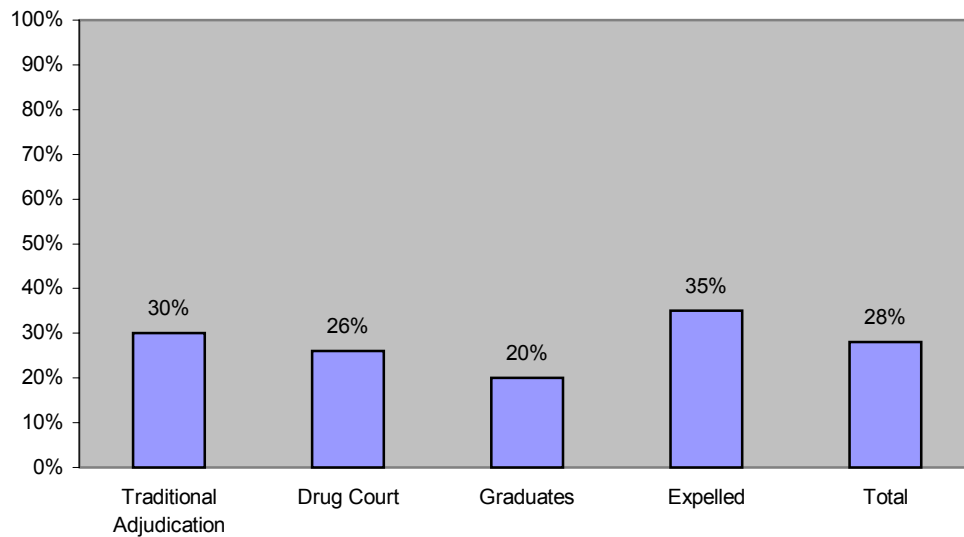


Table 5: Post-Program Recidivism Outcomes

		<i>Traditional Adjudication</i>		<i>Drug Court</i>		<i>Graduate</i>		<i>Expelled</i>		<i>Total</i>	
		N	%	N	%	N	%	N	%	N	%
% Excluded because of Incarceration		26	14	26	14	0	0	26	28	52	14
Post Discharge Arrest	Yes	46	30	41	26	18	20	23	35	87	28
	No	109	70	114	74	71	80	43	65	223	72
Felony	Yes	16	10	10	6	4	4	6	9	26	8
	No	139	90	145	94	85	96	60	91	284	92
Drug Offense	Yes	5	3	10	6	6	7	4	6	15	5
	No	150	97	145	94	83	93	62	94	295	95
Property Offense	Yes	12	8	6	4	3	3	3	4	18	6
	No	143	92	149	96	86	97	63	96	292	94
Personal Offense	Yes	11	7	8	5	3	3	5	8	19	6
	No	144	93	147	95	86	97	61	92	291	94
VCR/Probation Violation	Yes	14	9	12	8	4	4	8	12	26	8
	No	141	91	143	92	85	96	58	88	284	92
Other Offense	Yes	4	3	5	3	2	2	3	4	9	3
	No	151	97	150	97	87	98	63	96	301	97

Table 6: Post-Program Recidivism Outcomes

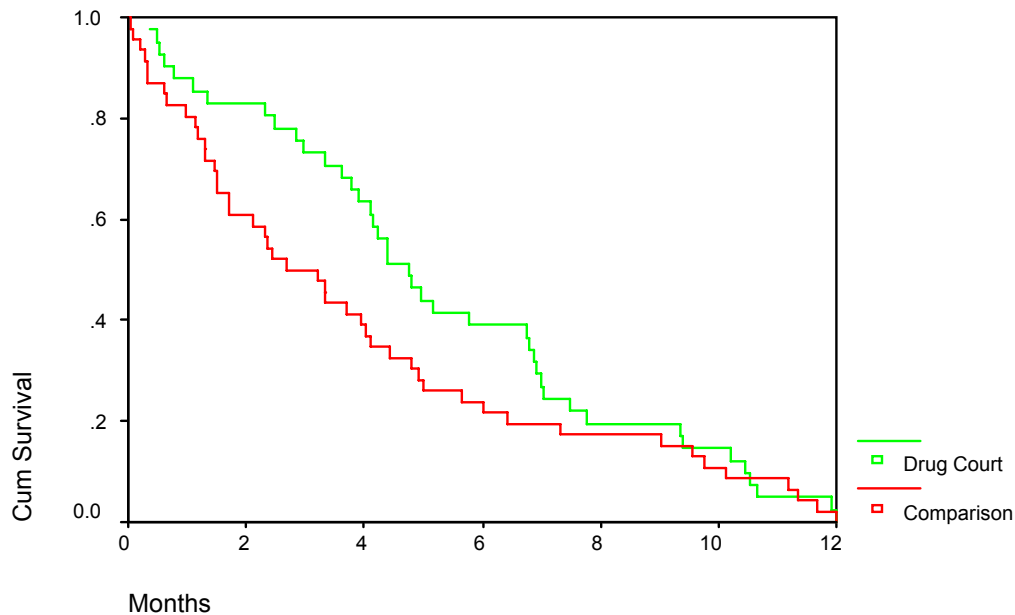
		<i>Not Admitted Comparison</i>		<i>TDS Comparison</i>		<i>Drug Court</i>		<i>Total</i>	
		N	%	N	%	N	%	N	%
% Excluded because of Incarceration		26	14	26	14	0	0	52	14
Post Discharge Arrest	Yes	25	31	21	28	41	26	87	28
	No	56	69	53	72	114	74	223	72
Felony	Yes	9	11	7	10	10	6	26	8
	No	72	89	67	90	145	94	284	92
Drug Offense	Yes	4	5	1	1	10	6	15	5
	No	77	95	73	99	145	94	295	95
Property Offense	Yes	7	9	5	7	6	4	18	6
	No	74	91	69	93	149	96	292	94
Personal Offense	Yes	6	7	5	7	8	5	19	6
	No	75	93	69	93	147	95	291	94
VCR	Yes	7	9	7	9	12	8	26	8
	No	74	91	67	91	143	92	284	92
Other Offense	Yes	1	1	3	4	5	3	9	3
	No	80	99	71	96	150	97	301	97

Survival Analysis

The outcome measures presented thus far focused on the overall recidivism outcomes between drug court and comparison group subjects. Here, rather than examining whether participants are re-arrested, we measure the overall amount of time that participants refrained from criminal activity - the length of time to the first post-program arrest. Survival analysis is a recommended technique to assess differences between drug court participants and the comparison group in the timing of new criminal conduct.

Results of the survival analysis indicate that drug court program participants had greater delays in returns to crime, as measured by months to first arrest. Not only do fewer drug court participants commit crimes but they do so less quickly. The graph in Figure 3 plots the percent of drug court program participants and the comparison group who were not arrested over time. The number of months is displayed on the horizontal axis. For example, from the point of admission to the drug court (time zero) no one had been rearrested. By the sixth month, 22% of comparison group subjects had not been arrested (78% had been arrested) compared with 39% of drug court participants (61% had been arrested).

Figure 3: Survivor Function Estimate of Months to First Arrest



Estimating Program Costs and Crime Reduction Benefits

The total economic costs of substance abuse in the United States exceeds \$275 billion per year of which nearly half is attributable to alcohol and drug related crimes. Such costs occur because of lost earnings, losses in productivity, direct salary costs and indirect costs of organizations that deal with the repercussions of substance abuse including the criminal justice system, mental health organizations, hospitals and social service agencies, to name a few. As a result, the creation of numerous drug treatment and prevention programs has spawned a great deal of interest among policy makers. And with respect to drug courts, researchers have been pressed to identify the costs and benefits associated with these programs. With limited state resources, policy makers are interested in how diversion programs reduce costs. Do Maine's drug courts save money? Are they cost-effective? Here, we assess the correctional costs/savings for drug court programs in Maine.

Overall, the total annualized operational costs for processing 181 adult drug court participants over the costs of processing a comparison group of adult offenders traditionally adjudicated is estimated to have saved a net total of **\$5,740,177** in criminal justice related expenditures. In short, findings indicate the drug court program is cost-effective. In comparison with the traditional adjudication and supervision of adult offenders, this drug court program not only benefits participants but saves money as well.

Methodology

Nationally, cost-savings from drug court programs have been widely reported in the literature. A number of different approaches have been used to determine whether or not drug court programs are cost effective. The methodology employed here is modeled after Harrell, Cavanagh and Roman (1998) who developed a method for calculating the costs and benefits of the Washington D.C. Superior Court Drug Intervention Program.

The cost estimates for this study are based on differences in use of resources between the participants in the adult drug court program and adult offenders adjudicated through traditional criminal case processing¹². The costs of operating the adult drug court program for the 181 participants in the recidivism study covers the first 27 months of the programs operation. Per diem costs of the drug court program for each participant was \$19.24. This was calculated by taking the total number of client days (139,687) and dividing this into the total costs for operating the drug court program (\$2,687,500). Total operating costs are based on the average daily cost times the number of days participants were enrolled in the drug court. The total annualized cost of the drug court's operations for the 181 discharged participants in this study (\$293,703) was calculated in the following manner:

Calculating Cost of Operations

Total Program Cost **\$2,687,500**

Total Operating Costs **\$2,687,500** / Total Client Days 139,687 = \$19.24/day

Less Cost of Active Days \$19.24 * 30,762 days = **\$591,861**

Less Cost of Excluded Cases \$19.24 * 55,551 days = **\$1,068,801**

Total Operating Costs **\$2,687,500 - \$591,861 - \$1,068,801 = \$660,832**

Annualized Cost (27 Months) \$660,832 * 12 / 27 = **\$293,703**

The analysis that follows is based on actual costs that are accrued by the public including: costs incurred by crime victims (e.g.: medical care, mental health care expenditure, lost productivity); costs that accrue to the public (e.g.: victim's services and compensation); and criminal justice costs including the costs of incarceration. Estimating the costs incurred by crime victims and the costs accrued to the general public are calculated by multiplying the number of crimes (incidents) times the cost associated with each criminal event. Estimates for incidence cost is derived from Miller, Cohen and Wierseman (2001) and Rajkumar and French (1996). Table 7 provides their estimates for the average cost per victimization and figures are adjusted for inflation through 2003¹³.

¹² Given the availability of information for calculating program and criminal justice related costs and the lack of data available for measuring many social and familial related benefits, it should be noted that the cost-benefit analysis presented here is conservatively estimated.

¹³ It should be noted that these are national estimates using data derived from the National Crime Victim Survey and the Federal Bureau of Investigation. Any bias that may result in the application of these estimates in Maine cannot, unfortunately, be estimated.

Table 7: Costs Associated with a Criminal Act^a

<i>Offense</i>	<i>Cost of Incidence</i>	<i>Offense</i>	<i>Cost of Incidence</i>
Robbery	\$46,484	Forgery	\$435
Assault	\$2,503	Larceny/Theft	\$1,344
Burglary	\$3,974	Motor Vehicle Theft	\$8,328
Criminal Threatening	\$2,503	Criminal Mischief	\$449
Gross Sexual Assault	\$200,037	Receiving Stolen Property	\$493
Operating Under the Influence	\$3,379	Disorderly Conduct	\$420
Fraud	\$420	Aggravated Assault	\$111,801

^a Adapted from Harrell, Cavanagh and Roman (1998)
Original estimates from Miller, Cohen and Wierseman (1993) were adjusted for inflation.

Incarceration costs were estimated at \$122.07 per day for adult prison facilities and incarceration costs for adult jail facilities was estimated by taking the average from seven county jails (Cumberland, York, Androscoggin, Penobscot, Washington, Oxford and Franklin) which amounted to \$87.58 per day per offender adjusted for inflation. Information pertaining to crimes committed as adults and related sentencing data was obtained from Maine's Department of Public Safety.

Table 8 provides the annualized cost comparisons between 181 adult offenders placed in the adult drug court program against the comparison group of 181 adult offenders who were traditionally adjudicated. Findings indicate that the program produced a net savings of \$5,740,177.00. These savings are largely a function of the incarceration costs that would have been incurred had the drug court graduates been adjudicated through traditional criminal case processing.

Table 8: Cost-Savings Estimate for Maine's Adult Drug Treatment Court Program

	<i>Comparison Group</i>	<i>Drug Court</i>	<i>Total</i>
Total Operational Costs (Drug Court)	0	\$293,703	(\$293,703)
Cost of New Criminal Activity	\$242,316	\$92,534	\$149,782
Incarceration Costs (Instant Offense)	\$1,746,238	\$1,995,729	(\$249,491)
Incarceration Costs (New Criminal Conduct)	\$562,675	\$441,209	\$121,466
Jail Sanctions	0	\$99,953	(\$99,953)
Subtotal	\$2,551,229	\$2,923,128	\$371,899
Differed Incarceration Costs (Graduates)	0	\$6,112,076	\$6,112,076
Total Savings			\$5,740,177

Conclusions

The current study contributes to ongoing discussions about the effectiveness of drug court programs. The study assessed five adult drug courts comprising Maine's Adult Drug Court system and compares twelve month post-program recidivism rates of 181 drug court participants with a comparison group of 181 drug involved adult offenders who did not participate in the drug court program. Consistent with the national literature, this study shows that Maine's Adult Drug Court program is not only effective in reducing crime but cost effective as well.

Overall results of the evaluation can be summarized as follows: 1) the rate of successful program completion for Maine's statewide adult drug treatment court program is consistent with and slightly higher than national averages; 2) Fewer drug court participants recidivated during a 12 month post-program follow-up than a comparison group of adult offenders traditionally adjudicated with drug court graduates being the least likely to re-offend overall; 3) Adult drug court participants were less likely than the comparison group to be rearrested on felony charges and less likely to commit property and violent crimes; and, 4) The adult drug court program has generated a net correctional savings of \$5,740,177.00. These savings are largely derived from the incarceration costs that would have been incurred had drug court graduates been adjudicated through traditional criminal case processing.

Limitations

Several limitations of this quasi-experimental study deserve recognition because they may have important impacts on the interpretation of outcomes. First, the outcomes presented in this study do not necessarily reflect present day circumstances of the program. Measuring re-arrest rates over a twelve month post-program follow-up required the use of sample of participants who either graduated or were expelled from the drug court program at least 15 months prior to the publication of this report. Hence, the analyses are skewed towards outcomes occurring more than a year ago. Second, in an ideal research design information about the initial year of program operations would be excluded to account for issues that often arise during program implementation. Third, there were an insufficient number of cases to conduct a site by site assessment of outcomes. The study would be greatly enhanced had it been possible to determine whether there is overall consistency in outcomes or if some drug court sites have better outcomes than others. Fourth, the observed differences in recidivism could arise because of selection bias. Although the study includes a comparison group, there is the likelihood that the experimental and control groups (particularly the offenders who were referred and not admitted to the drug court program) differ on any one of a number of unmeasured characteristics such as motivation, social support, intelligence or any number of uncontrolled factors that could influence differences in outcomes. Lastly, the data used in this evaluation is limited to data derived from official records. Hence, we did not examine how clients perceive their drug court experience or how they believe the drug court has affected their lives. Introducing this added dimension to the research as well as a longer follow-up period for measuring recidivism (24 months) is plainly, the next order of business.

Appendix A

Instant Offense Charges – Experimental and Control

	<i>Control</i>		<i>Experimental</i>		<i>Graduate</i>		<i>Expelled</i>		<i>Total</i>	
Offense Types and Class	N	%	N	%	N	%	N	%	N	%
Robbery (A)	5	3	4	2	3	3			9	2
Aggravated Assault (A)	1	1			2	2			1	.3
Aggravated Assault (B)	5	3	3	1			1	1	8	2
Assault (C)	3	2	1	1	1	1	2	2	6	2
Assault (D)	19	12	3	2	3	3	2	2	24	7
Sexual Abuse of a Minor (C)	1	1							1	.3
Unlawfull Sexual Contact (C)	1	1					1	1	1	.3
Criminal Threatening (B)									1	3
Criminal Threatening (C)	2	1	2	1	1	1	1	1	4	1
Harassment by Telephone (E)			1	1			1	1	1	1
Terrorizing (C)	1	1							1	.3
Terrorizing (D)	1	1	1	1	1	1			2	1
Reckless Conduct (C)			1	1	1	1			1	.3
Burglary (B)	9	8	19		5	6	14	15	31	9
Burglary (C)	12	6	10		7	8	3	3	19	6
Burglary of Motor Vehicle (C)	4	3	5	3	2	2	3	3	9	2
Theft (B)	2	1	2	1	1	1	1	1	4	1
Theft (C)	7	4	13	7	6	7	3	3	20	6
Theft by Deception (C)	1	1	3	2	1	1	2	2	4	1
Receiving Stolen Property (C)			2	1	1	1	1	1	2	1
Criminal Trespassing (D)	1	1	1	1			1	1	2	1
Aggravated Criminal Trespass	1	1							1	.3
Disorderly Conduct (E)	3	2							3	1
Aggravated Criminal Mischief (C)			1	1	1	1			1	.3
Aggravated Trafficking of Scheduled Drugs (A)	4	1			4	4	5	5	13	3
Aggravated Trafficking of Scheduled Drugs (C)	1	1	3	2	1	1			4	1
Aggravated Trafficking of Scheduled Drugs (D)	1	1			1	1			1	.3
Aggravated Trafficking in Schedule X Drugs (B)			2	1	2	2			2	1
Unlawful Trafficking in Scheduled Drugs (B)	15	10	19	10			9	10	34	10
Unlawful Trafficking in Scheduled Drugs (C)	1	1	3	2	3	3	2	2	4	1
Unlawful Trafficking in Scheduled Drugs (D)			1	1					1	.3
Unlawful Possession of Scheduled Drugs (C)	6	4	6	3	1	1	5	5	12	4
Unlawful Possession of Scheduled Drugs (D)	2	1	7	4	1	1	4	4	9	3
Unlawful Possession of Scheduled Drugs (E)	1	1	1	1			1	1	2	1
Acquiring Drugs by Deception (C)	2	1	1	1	1	1			3	1
Acquiring Drugs by Deception (D)	2	1							2	1
Unlawful Furnishing Scheduled Y Drugs (C)	1	1	4	2	2	2	2	2	5	2
Unlawful Furnishing Scheduled Drugs (D)			1	1	1	1			1	.3
Stealing Drugs (D)	1	1							1	.3
Sale and Use of Drug Paraphernalia (E)	1	1							1	.3
Possession of Scheduled Drugs (B)			2	1	1	1	1	1	2	1
Possession of Firearm by Felon (C)					1	1			1	.3
Negotiating a Worthless Instrument (C)	1	1							1	.3
Assaulting a Police Officer (C)	2	1							2	1
Arson (A)	1	1							1	.3
Hindering Apprehension (D)	1	1							1	.3
Escape (D)	1	1							1	.3
OUI (C)	3	2	5	3	4	4	1	1	8	2
OUI (D)	14	9	18	10	7	9	11	12	32	10
Aggravated Forgery (B)			1	1	1	1			1	.3
Forgery (C)	2	1	2	1	1	1	1	1	4	1
Forgery (D)	2	1							1	.3
Trafficking in Prison Contraband (C)			1	1	1	1			1	.3
Violation of Protective Order (D)	2	1	1	1			1	1	3	.1
Refusing to Stop for Police (C)	2	1	2	1			2	2	4	1
Violation of Condition of Release (E)	1	1	1	1			1	1	2	1
Operating after HO Revocation (C)	6	4	14	8	8	9	6	6	20	6
TOTAL	181	100%	181	100%	89	100%	92	100%	362	100%

Appendix B

The study also examined the specific crimes committed by these adult offenders during the post-program period. Table 9 presents arrest information by the specific offense charges organized by both type and class. Overall, there are few differences between drug court participants and non-drug court offenders across the various classes of offense categories. Overall findings indicate that the majority of adult offenders in the study were arrested for less serious misdemeanor offenses including assault, theft and operating under the influence. These three offense categories combined account for nearly 25% of all offense charges. Drug court participants were more likely than the traditionally adjudicated offenders to be arrested for alcohol or drug related offenses (e.g.: trafficking and possession) whereas comparison group subjects were more likely to commit more serious crimes against a person (e.g.: aggravated assault and terrorizing) Differences that do exist are not statistically significant.

Table 9: Post-Discharge Offense Types and Class

Offense Types and Class	<i>Control</i>		<i>Experimental</i>		<i>Graduate</i>		<i>Expelled</i>		<i>Total</i>	
	N	%	N	%	N	%	N	%	N	%
Robbery (A)			1	2	0	0	1	4	1	1
Aggravated Assault(A)	1	2							1	1
Aggravated Assault (B)	1	2							1	1
Assault (D)	6	13	6	14	3	17	3	13	11	14
Gross Sexual Assault (A)	1	2							1	1
Terrorizing (D)	1	2							1	1
Burglary (B)	1	2							1	1
Burglary (C)	3	7							3	3
Burglary of Motor Vehicle (C)			1	2			1	4	1	1
Harassment by Telephone (E)	1	2	1	2			1	4	2	2
Theft (C)	2	4							2	2
Theft (D)	1	2							1	1
Theft (E)	1	2	3	7	2	11	1	4	4	5
Theft by Deception(C)	1	2							1	1
Theft by Deception (D)	1	2							1	1
Receiving Stolen Property (E)	1	2							1	1
Unauthorized Use of Property (D)			1	2			1	4	1	1
Criminal Mischief (D)	1	2	1	2	1	6			2	2
Aggravated Trafficking of Scheduled X Drugs (B)	1	2	1	2			1	4	2	3
Unlawful Possession of Scheduled Drugs (D)	1	2	1	2	1	6			2	2
Unlawful Possession of Scheduled Drugs (E)			3	7	2	11	1	4	3	3
Unlawful Possession of Hypodermics (D)			1	2			1	4	1	1
Possession of Scheduled Drugs (B)			1	2	1	6			1	1
Escape (D)			1	2			1	4	1	1
OUI (C)	1	2	1	2			1	4	2	2
OUI (D)	2	4	2	5	2	11			4	5
Operating after HO Revocation (C)	1	2							1	1
Refusing to Stop for Police (C)	1	2	1	2			1	6	2	2
Forgery (C)			1	2			1	4	1	1
Forgery (D)	2	4							2	2
Possession of Fireworks with Intent to Sell (D)			1	2			1	4	1	1
Failure to File ME Income Tax (D)			1	2	1	6			1	1
Violation of Condition of Release (E)	14	30	12	29	8	35	4	22	26	30
TOTAL	46	100	41	100	18	100	23	100	87	100